

SCIENCE FICTION ADVENTURES

YEARBOOK 1970

60¢

WHO SOWS THE WIND—ROG PHILLIPS • BEYOND THE UNIVERSE—STANTON COBLENTZ
• THE CHILDREN—CHESTER S. GEIR • THE SWORD AND THE ATOPEN—T. H. GREENFIELD
• THE RAPE OF THE SOLAR SYSTEM—L. STONE • THE DAY TIME STOPPED—B. BUCKNER •
WARLORDS OF MARS—FESTUS PRAGNELL



STORIES of the STARS

By MORRIS J. STEELE

Death of the Moon

Here is the possible true story of the end of the Moon civilization and origination of the craters

(See back cover)

ONE of the most interesting things in the night sky has always been Luna, Earth's lone satellite. But perhaps the most interesting feature (beyond the "face" that can be seen with the naked eye) is one we can now see through telescopes, the pocked mass of craters that mars the whole face of the little world.

How did these great craters come? Are they volcanic? Science says no. They are much too large, and much too regular in shape. In experimenting to discover how they were made, interesting results were made by throwing stones into soft mud. The resultant "craters" looked exactly like the craters of the moon, with the little central prominence that most lunar craters have.

So, say scientists, the moon's surface has been bombarded by meteors, which have caused it to look as though it had at one time contracted smallpox.

Here another question comes up. Are these craters caused by meteorites such as those which fall daily on the Earth? Again science says no. For then we would continually note new craters on the moon. Are they, then, caused by meteors such as the one which now rests at the bottom of a crater in Arizona? Again, no. If huge meteorites were as frequent as the surface of the moon would indicate, then Earth, too, would be pockmarked, for not even our blanket of atmosphere could burn up such giants.

There is only one answer. Some time in the dim past, a swarm of meteors, or perhaps the nucleus of a giant comet, collided with the moon, striking it squarely, and destroying it and its civilization. Science tends to the comet theory, since Earth itself escaped the direct storm of missiles, and received only such stray ones as the Arizona meteor, the Siberian meteor (although these two are certainly not a portion of that ancient swarm, but more recent—the Arizona meteor approximately 4,600 years ago; the Siberian at the dawn of the twentieth century) and the Carolina meteor craters. The Carolina craters are incredibly ancient, having been discovered by photographers from a high altitude. Also, there is direct evidence of a belt of meteor storm, or a comet, which grazed the earth and passed on in ancient times (associated by many with the destruction of the Bifrost Bridge of Ancient Asgard [Norse] by the Ragnarok).

Perhaps it was the Ragnarok (the comet) which destroyed the moon civilization, left its face marked with hundreds of giant craters and thousands of smaller ones, and materially changed the face of the earth itself.

Let us picture (as has one of our authors in this issue in a story on exactly this subject) what might have happened on the moon on that long-gone day when doom came.

Lunar astronomers must have seen the comet or meteor swarm coming (Earth ancients of Asgard knew it was coming) and plotted its course so that they knew it would strike the moon squarely. Their science must have been great, because theirs was a much older world (in the sense that it cooled more quickly and thus permitted life much earlier). Knowing, then, that disaster lay ahead, they must have made some attempt to avert it.

Perhaps they built huge machines, employing power so great that we don't even dream of it today, in an attempt to divert the comet, or to swerve their own body from its path. The later task, is, theoretically, an impossible one (the bootstrap rule) and thus they must have concentrated on force rays to throw aside the onrushing menace. In order to divert a stellar body, it is much more feasible to apply an outside force, rather than a force located on the body itself, especially if it is of any size. To make of the moon a giant rocket would have been as fatal as the comet storm, since it might crash into the earth or fall into the sun, once its orbit was disturbed.

The day of destruction must have come with a great battery of force rays trained on the onrushing comet. These rays must have attempted to scatter the huge boulders of the head of the comet.

The sight must have been spectacular. In those days the moon had an atmosphere. But when the comet struck, an inferno of pyrotechnics began. Flame must have roared down from the heavens, and added to this heat must have been that generated by the impact of the giant meteorites. All of Luna's cities were smashed to dust and molten lava. Earthquakes, eruptions, added to the destruction. The very air burned. And the machines diverted only minor portions of the comet, enough to singe and strike the earth on a minor scale. And when the comet passed on, Luna was dead. What air was left seeped away into space forever.

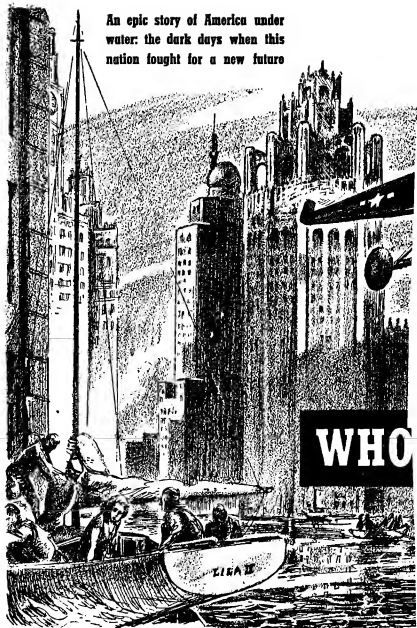
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Cover by ROBERT GIBSON JONES
"WHO SOWS THE WIND"

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An epic story of America under
water: the dark days when this
nation fought for a new future



WHO



NEAL LOOMIS had the uncanny feeling that he was a disembodied spirit hovering over the snakelike, slowly moving streams of humanity far below. The feeling didn't leave even when he manipulated

the controls that sent him plummeting straight down, to halt abruptly five hundred feet above the trouble spot he had discovered, looking down upon individual dots that were men, while those dots glanced upward at the

plastinosed jetcoptor carrying him.

Automatically he flicked on the radio and called base. "Loomis," he identified himself. "Slide twenty miles south of point seventy-one point four. Route seven. Ambulances and excavating equipment needed. Terrain—mud."

He listened to the playback, grunted his "Okay," and flicked the mike over to the p. a. speakers.

"Help is on the way," he said into the mike; and outside the coptor his voice boomed thunderously. "Ambulances and excavating equipment will be here by freightcoptor within an hour."

He grinned mirthlessly as he saw microscopic arms far below wave their gratitude for his prompt action. Touching the controls, he dropped still lower.

Most of the dots down there were men. Men walking from Duluth, too impatient to wait their turn on the busses, or anxious to get to the Arctic and find a place for their families before the women and children arrived by bus.

The slide, Neal saw, was a bad one. An entire embankment of the gorge which the ribbon of humanity had been flowing through had given way, washing down over the trail for a distance of two hundred yards and engulfing a hundred or more.

But now a new danger threatened. With those in back along the route still coming forward, in another hour there would be thousands at this spot. Such a weight would cause more cave-ins.

He whirled his jetcoptor about and sped down the line with his p. a. system on, ordering the column to stop its march because of trouble ahead. He followed the line back this way for five miles until he reached a broad flat where there would be no possibility of cave-in. On his way back he saw

with satisfaction that most had complied with his order. The few who pushed on out of curiosity to see what had happened, dropped back into line as he explained briefly there had been a cave-in.

The first of the freightcoptors was settling gently. There was a bold white cross on it. It would have doctors, nurses and a complete emergency setup on board.

"Calling three seven seven," the radio said. Neal flicked the radio over.

"Three seven seven," he said. "Go ahead."

"Go to aid of two four three on route six at point seventy-one point two. Fighting going on."

Neal climbed to five thousand, shut off and retracted the lift blades, and, taking a deep breath, turned on the jets. The air speed indicator rose rapidly to five fifty and held there. The barren landscape below slid underneath unrealistically. Abruptly there was another column of human ants ahead, then underneath as he banked northward. Ahead he saw the island of milling men. He shot upward in a steep climb and shut off the jets. When air speed dropped to a hundred, he extended the lift blades and pressed the button that activated the coptor motor.

Then he was dropping almost in free fall to where he could see another jetcoptor hovering.

"Two four three," an excited voice erupted from the radio. "Carl Adams. What shall I do?"

"I'll do it," Neal said. "Stay where you are and report my arrival." While he said this he dropped below the other coptor and brought up fifty feet above the melee of struggling men. He flicked on his p. a. and said, "I'll give you all five seconds to stop your fighting and get moving. Then I'll gas you." His voice boomed out under-

neath the coptor. "One! Two! Three! Four! Five!"

While he spoke, he broke out his binoculars and studied the men below. One man, standing apart from the others and surrounded by a compact group of half a dozen men, had been evidently shouting at the fighting mob. He now was looking upward, shaking his fist and shouting something. Abruptly he whipped out something dark. A flash of flame erupted. A second later there was a plunk from somewhere behind Neal, followed by the sharp report from below.

Neal opened the tear gas cocks and gyrated over the mob, the lift blades sending the stuff downward. He did this with one hand while he broke out his gas mask with the other, constantly keeping his eyes on the man who had fired at him.

The gas was taking effect quickly. The fighting mob was now milling about in confusion as men became blinded and struck out wildly at friend and foe alike.

Neal used both hands to bring the jetcoptor over the leader. In a maneuver that had been drilled into him he opened the bottom hatch and dropped a rope about the man, jerking it taut. Seeing that it had landed just right, he started a gentle climb while pulling the man upward through the trap.

"Stop moving so much and let me handcuff you," Neal said calmly, "or I'll use a sap on you."

The man's reply was unprintable invective.

"Sorry," Neal murmured. He brought the leather-cased blackjack sharply against the man's scalp, and saw the flailing arms go limp.

THE NAME tattooed on the unconscious man's chest was Einar Tharnsen. Neal handcuffed him to the frame of the plastidome, then slid a second pair of handcuffs around the

pipe support of the seat and locked Einar's ankles.

With that done, he steadied the coptor and radioed his report. He was being told to bring the prisoner to base when Einar opened his eyes and shook his head groggily.

He tried to lift a hand to his eyes. Suddenly he became wide awake. He took in the handcuffs—the bleak landscape far below.

"You're in for it now," Neal growled. "Why'd you do such a fool thing as to incite trouble? You should have known—"

"Sure," Einar said bitterly. "I should have known. *You* try walking for two weeks in stinking mud instead of sitting upstairs in your chrome-ornamented observation jetcoptor with its airconditioning and thermos of hot coffee—"

"Where'd you get the gun?" Neal said. "You were searched before—"

"Wouldn't you like to know!" Einar taunted.

"Just curious," Neal murmured. "I don't know what they're going to do with you at base when I turn you over, but they can shoot you if they wish."

"And probably will," Einar said. "They're just that stupid. They've been nothing but stupid all along. I have a wife and four kids. What happens? They give my wife and kids passes on the bus and expect them to go up without me!"

"Why not?" Neal said. "The seat you wanted probably has some woman or child in it. You're lucky they let you start the trail. Maybe they'll send you back down to the States and let you die with the ones there won't be room for up north."

"Yes," Einar said. "While you ride around in your nice plane and have your bed at base made up by an orderly."

"According to you," Neal said, "we

should all be riding around in jetcoptors or all be walking the trail together. If you were in my shoes I doubt if you'd land your coptor and join those going northward on foot."

"The whole thing's stupid," Einar said. "You soldiers don't deserve to be in the driver's seat while we citizens are herded like sheep. I know a lot more about it than a lot of people. I know, for instance, that the big brass knew they were wrecking the world when they dropped those bombs all over Europe. Plenty of people knew that DeVree tried to tell the Government what would happen, and was told that they knew what would happen, but had to make a choice between wrecking the world or submitting to world conquest."

"What choice would you have made?" Neal asked idly.

"Surrender," Einar said. "Slavery for a generation or two, then revolt. It would have worked. And Europe and the Mississippi Valley would still be liveable."

"Me," Neal said, "I was drafted. I do what I'm told." He gave Einar a sidelong smile. "Maybe you'll learn to do the same."

Far below, the trail of human ants formed a narrow ribbon stretching from the southern horizon over the desolate lifeless terrain to the northern horizon. Neal retracted the suddenly stilled coptor blades. In the unnatural silence the wind could be heard whistling past the falling ship. Then, with a coughing snarl, the jets came to life, pressing both men firmly against the backs of their seats.

Neither spoke as the air speed indicator crept up to five fifty and held there, and the plastic-and-metal ship hurtled northward across landscape that—until two short years before—had not seen the light of day since before the dawn of known history, buried eternally, it was thought, un-

der the ice and snow that was the arctic wasteland of the world before World War III.

EINAR THARNSEN paced the small cell impatiently. In spite of his frustration and anger he found himself curious about his surroundings. The walls and floor seemed made of mud blocks, yet when he rapped on them with his knuckles they gave off a solid sound like the best of concrete. And when he scraped against them with his fingernails surprisingly little scraped away. The only thing wrong with them from the structural standpoint was their exceeding ugliness of color.

There was no window, barred or otherwise. The door was of solid metal with a small square up at eye level with heavy wire mesh apparently welded in. Light in the cell came from a single neon tube, unprotected. Einar's heart had leaped when he first noticed this, then dropped as he realized that the reason it was unprotected was that if the prisoner in the cell wanted to monkey with it he would be left in darkness.

Footsteps had been going up and down outside the door all the time, so that Einar paid no attention to them. Now, suddenly, there was a scraping sound against his door. He whirled toward it, a mixture of emotions on his face.

A man fully as big as he was outside as the door swung open. Behind him were others, all in army uniform.

"All right, you," the big one said. "It's your turn in court. Get moving. The lieutenant will be mad if you keep him waiting."

"No breakfast before court?" Einar asked.

"Breakfast?" the sergeant said. He shook his head. "The only prisoners that eat around here are those that are sentenced to be shot. Come on!

Get moving."

The corridors and courtroom were of mud block construction—the same as the cell had been. As Einar entered and glanced quickly around he saw there were only three people in the room: Neal Loomis, a WAAC who was obviously a secretary, and a lieutenant, short and slight of frame but with an unusually high forehead and calm expressionless features.

As Einar paused, the sergeant wrapped a beefy hand around his arm and guided him forward, to come to a stop directly in front of the lieutenant's desk.

"Your name?" the lieutenant asked.

"Einar Tharnsen."

"The charges against you have already been presented. Have you anything to say about them?"

"How do I know what they are?" Einar said defiantly. "I haven't heard them."

"They were factual," the lieutenant said coldly. "Where did you get the automatic you used to fire on an army plane?"

Einar gulped, suddenly nervous. The way that had been stated made it sound bad. "Firing on an army plane!"

"I owned it," he said. "I brought it along with me because I didn't know what I would be running into on the long trip up here."

The WAAC was writing rapidly in shorthand.

"Lieutenant Loomis reports that you seemed from the air to be inciting a riot. You were surrounded by what seemed to be bodyguards. You were shouting what may have been instructions to one faction of the rioters. Those are the appearances. Have you anything to add in the way of explanation?"

"I most certainly have," Einar said. "I am not going to name any names, but there was a tough punk

with a half a dozen lizards in the group. The first week they won all our money—from all the rest of us. After that they made us take second place in everything. At night they took the pick of bunks in the rest camps. If they didn't have as much as they wanted to eat out of the rations doled out, they went around and made the rest of us fork over part of ours. We had to organize. I did the organizing. That riot was the show-down."

"That doesn't check with your actions. If that were true, why didn't you welcome the intervention of Lieutenant Loomis rather than try to shoot him down?"

"I didn't try to shoot him down," Einar said uncomfortably. "I thought he would shoot back up again and give us time to really clean up on those hoods before it was stopped. Instead—" he turned accusing eyes on Neal, "—he used tear gas."

The lieutenant turned to the WAAC secretary. "He is to be transferred to labor camp twenty-three for a minimum of six months," he dictated. "A report on his conduct must be filed with this court every Monday."

"But my wife and kids—" Einar said, dismayed.

"Will be taken care of by the machinery set up," the lieutenant snapped, suddenly showing irritation. "Lieutenant Loomis was of the opinion that you think we should run things for your special benefit. I can see why he was of that opinion." He leaned forward, placing his elbows on his desk. "I want to warn you, Mr. Tharnsen, that your sentence has a minimum, but no maximum. If you are mildly intractable you will never be free. If you are more than mildly intractable you will wind up before the firing squad. You should be grateful that you are being given a chance to survive, and your children and

their children. Only a very small percentage of mankind gets this chance. But you—you criticize the conduct of the war, show continued defiance of authority, and seem unable to appreciate your privileged position and treatment. It is only the mercy of this court that prevents you from being sentenced to be shot—and the fact that we have a serious labor shortage in the mud block manufacturing industry."

His look at the beefy sergeant was an order to take the prisoner away.

"GOOD MORNING, Lieutenant."

Neal snapped out of his reverie and glanced at the speaker. "Oh, hello, Marv," he said.

"Thinking about home?" Marvin Swank asked, grinning good-naturedly down from his height of well over six feet.

"As a matter of fact, no," Neal said. "I was thinking of a poor devil that just got sentenced to the labor camps."

"He's lucky," Marv said. "How about dropping into the canteen for a cupsawfee with me—or are you in a hurry?"

Neal glanced at his watch. "I guess I can take half an hour without getting court-martialed. How've you been, Marv?"

They fell into step and started down the street together.

"I'm in mourning," Marv said. "The last of the Texas Panhandle is under water since about twelve hours ago. In a way though I guess it's poetic justice."

"What do you mean?" Neal asked.

"I owned a thousand acres of Panhandle," Marv said. "I made the money I bought it with by selling under-water Florida real estate. Now my thousand acres are under water."

"Oh," Neal said, his mouth quirked into a half smile.

"The most interesting development though," Marv said, "is that the Atlantic and Pacific have gouged a channel through Honduras and Guatemala. They tried to delay it by blowing up a couple of mountains, but no soap."

"Well, that was inevitable," Neal said. "The mean level of the oceans in the tropics was eight feet above prewar normal six months ago and still rising."

"It'll be bad if the peninsula breakthrough washes a wide channel in a hurry," Marv said, pushing open the canteen door for Neal. "The Atlantic wash up the Mississippi Valley will become a tidal wave then, and probably extend the rest of the way up to the Canadian border. Funny about that, too. Maps of the United States are beginning to look quite a bit like prehistoric America."

The two men got in line with trays. Ten minutes later they were settled beside a window that looked out on the drab blocks of buildings and the equally drab street, all the color of mud.

"Things compensate though," Marvin Swank said, stirring his coffee. "The last of Texas goes under—and another thousand square miles of northern Greenland is dried out enough now for habitation. They're sowing it with wheat right now, in the hopes that enough of it will grow to hold the land in place. All this soil has been under ice so long there isn't any body to it to keep it from being washed away."

"Heard from your family?" Neal asked.

An expression of pain crossed Marvin Swank's lean features and was gone. He shrugged. "No news," he said. "But then, no news is good news. They're probably quite happy without me. How about your family?"

"No news yet," Neal said.

"Your wife, Annette, was in St. Louis wasn't she?" Marvin asked.

"Up until a week before the first tidal wave rolled over it," Neal said tonelessly. "That's the last letter I got from her. She told me about the bombing. It got our house. She was living with some friends just off Lindell Boulevard near Forest Park. Poor kid...she was trying to cheer me up by telling me all about how Joan and Frank ran wild over the zoo."

"She had the car, didn't she?" Marv said. "In all probability she got away safely to the high ground of the Ozarks."

"But—damn it—that was six months ago!" Neal said. He took a deep breath and got hold of himself. "Let's change the subject," he growled. "Sometimes I can almost feel the way Einar Tharnsen feels."

"Who's he?" Marv asked.

"The prisoner in court this morning," Neal said. "He sort of felt the army should move heaven and earth for him so he could be with his family. Maybe I should have told him the reason my own wife isn't safely up here is because the army feels it must lean over backward not to show discrimination toward families of its personnel." He looked at his watch. "Got to get going," he said, shoving his chair back and rising.

"Me, too," Marvin said. "We'll check in about ten thousand new arrivals today, according to estimates."

NEAL SENT his jetcopter straight up to five thousand feet. Below, the growing mass of base sprawled out over several square miles, a geometric pattern in the dark mud. To the north was a different kind of pattern where tiers of cement-impregnated mud blocks were stacked up to dry, with portable wind generators lined up beside them. It was labor camp twenty-three—the one where

Einar Tharnsen had been sent.

The feeling of being disembodied and suspended in thin air began to be felt. With a feather touch on the controls Neal swung the jetcopter slowly around, surveying the landscape below and the far flung horizon.

Several miles to the south the head of the main ribbon of migrants on foot was slowly approaching, giving the impression of being the forward end of some gigantic worm slowly slithering along.

To the west there was the occasional glint of sunlight reflecting from patrol craft. Idly Neal wondered if the Russians from their bases in Alaska were planning an attack. Probably not. Reports were that they were too preoccupied with survival there as the last of the ancient ice floes sent vicious torrents down through the newly naked valleys. And two thousand miles was too great a distance for heckling operations. That was one of the reasons why base had been established three hundred miles north of Chesterfield in a large plane of what had once been Hudson Bay. That, and the fact that the spot was the ideal radiating point for the vast lands opening up by the melting of the arctic snow and glaciers and the emptying of the thousands of square miles of inland seas.

Still, why were there so many fighter patrol craft out? Neal shrugged off the question uneasily as he stopped the motor and retracted the lift blades while the jetcopter plummeted in free fall. A moment later and the jets were blasting in full thrust, the air speed indicator reaching toward the five fifty point.

Below, the ribbon of human ants branched into three narrower ones. Five hundred miles to the southward they would further branch, until they were divided into perhaps fifty separate streams originating from as

many points of the Canadian-American border.

From ahead came the glint of another patrol jetcopter, and lower down, to the east, a huge freightcopter moved along like an overgrown bumble bee. "Maybe it's from that slide I reported yesterday," Neal thought.

"Calling three seven seven," the radio said suddenly.

Neal flicked the radio over. "Three seven seven," he said. "Come in."

"Base hospital reports your wife has a baby," the radio said. "I hope you thought to buy cigars for the event."

"A boy or girl?" Neal asked, suddenly tense.

"No definite report on that yet. Several of the babies are girls, but which is yours, I don't know. Anyway, congratulations. I'll be seeing you—I hope."

Neal looked anxiously to the west. There wasn't a sign of anything yet. Throwing in the autopilot, he got out of his seat and climbed out of the plastinose into the center-of-gravity section.

He had known his armament would be in order, but he wanted to make certain. The *cigars* glistened dully, target-seeking rocket missiles in racks where they would feed automatically into the firing tubes.

With a grunt of satisfaction Neal returned to his seat at the controls. A hasty glance to the westward reassured him. The sky was still empty. He fastened his seat harness. Now if his plane were hit he could press the seat ejector stud and be free of the plane.

He glanced toward the west again, tensely. What would he get? A "girl"—relatively slow duster-type plane? Or a "boy"—one of the jet fighters? Neither, he hoped. But one might get through the fighter net and try to run

along several miles of the rivers of men, spreading radio-active dust or virus dust.

Or they might have an entirely new weapon to try out. That would be more likely. The radio-actives and virus dusts were pretty much a waste of time now with the G.I. germicide masks and the new plasma technique.

With startling abruptness Neal found himself staring at a plane with the same feeling he would have staring into the barrel of a gun. And it was remarkably similar in shape!

HE DID two things simultaneously. He pressed the firing stud on the control panel. He pressed the stud that would bring out the lift blades.

There was a still-photograph memory of his target-seeking rocket exploding near the enemy plane. It hung stationary in his vision as he felt himself thrown violently forward.

The violence of his forward motion jerked his hand from the stud. There was a long moment of utterly dizzy flight before the lift blades retracted from their partial extension and the autopilot sought and found a steady course.

There was another long second while he got used to the idea of still being alive. As he looked around outside for some sign of the enemy plane a strange calm took possession of him. He welcomed it. He had possessed it before in air combat. Sometimes he had wondered at it, wondered if it were something new or the same as the calm that may have possessed all men fighting for their lives under the constant presence of death, even in the days when such fighting took place on horseback or on foot.

There was no sign of a burning plane streaking toward the ground. That meant the attacking plane hadn't been hit mortally.

Below, the ribbon of men was flowing out into a wide, indistinguishable blot as the migrants recognized their danger and spread out to minimize it.

From the north a plane appeared, following the line of the migrants' trail. Behind it a widening cloud of white streamed. In split seconds Neal turned his plane in its direction and fired. This time there could be no miss. The target-seeking rocket would have an appreciable fraction of a second to get its bearings and locate its target.

The "girl" saw its danger and pointed upward to escape at the last instant, then disrupted into flying bits of metal.

"God! It's quick!" Neal muttered. "I'll never get used to it. Never!"

Another plane appeared. His heart stopped. Then he recognized the familiar lines of an American fighter. There were others now. The sky was full of them.

Neal sent his plane into a steep climb and shut off the jets. The air-speed dropped. At a hundred he sent out the lift blades and started the motor. His role now would be that of decoy if any enemy pilot were inexperienced enough to want to make him a target.

The danger was far from over, but the fight was out of his hands now. He deliberately forced himself to ignore it and concentrate on what lay below.

The streamer of cloud the enemy plane had laid out was resolving itself into individual parts now. Parts that fluttered and fell slowly.

"Papers!" Neal grunted.

He dropped his jetcopter toward the mass of fluttering slips of paper. They shied away from him as he sank into them. He had to drop all the way down and get out of the plane to get one.

"Huh!" he grunted as he read it.

Comrades of America, it read. Revolt against your warlord slavemasters who have brought ruin to the world. Unite with us for peace and brotherhood. There is room for us all. Destroy this note and bide your time until we come to help you liberate yourselves.

It was signed, *The People's Army*. Neal contacted base and read it.

"Turn it in at the end of your day," came the instructions. "We can find out all sorts of things from it."

"Right," Neal said.

He folded it carefully and put it in his billfold, then lifted the jetcopter and began his patrol. Half an hour later he passed over the landslide of the day before. The ribbon of men had been routed around it. Huge machinery was clearing it away in a futile search for victims that might still, by some miracle, be alive.

It was nearly four hours before his hands began to itch a little and he looked down and saw the green blotches on them.

"**S**UCH AN old trick," Dr. Green said sadly. "But maybe that's why it succeeded. The first thing I would have thought of with those pamphlets was disease or chemicals."

Neal made no answer.

"And such an interesting new disease," Dr. Green went on. "Gangrene in healthy tissue!"

"Gangrene?" Neal said.

"Yes, that's right. Gangrene. And we're going to have to act fast. I think it works only by contact and by spreading from cell to cell. We'll save enough of the infected areas of your skin to study it. You will undress now. Be careful you touch no other parts of your skin with your fingers. Your face?" The doctor became suddenly concerned. "I hope you haven't touched your face!"

"I—I don't think so," Neal said.

"After I saw the blotches I didn't, naturally. Before that I'm not sure."

"There seems to be no infection on your face," Dr. Green said. "If you haven't touched it there won't be. Perhaps. Here, Dr. Ohrman," he said to the interne beside him. "Help him undress. Put some rubber gloves on so you won't catch it. Take him to the surgery and put him under anesthetic, then cauterize a narrow band around each infected area back far enough into the healthy flesh to make sure it's confined. I'll be up shortly after I've informed base and given them instructions for dealing with the migrants and destroying the pamphlets. This may be more serious than we think. We must act quickly."

He left the room, taking his calmness with him.

"Sit down and hold your hands out away from you," Dr. Ohrman said, going to a drawer and taking out a pair of red rubber gloves.

Neal took in the paleness of the interne's features and sensed the man's panic. A little of it spread to him.

"What's making you so frightened?" he asked, sitting down. "After all, gangrene is an old ailment. Surely you doctors can handle it?"

"Of course. Of course," Dr. Ohrman said, giving Neal a smile that was meant to be reassuring. "We'll find out all about it and learn to handle it effectively."

"It's just the same old disease stepped up in virulency, isn't it?" Neal persisted as the interne unlaced his shoes and pulled them off.

"Of course," Dr. Ohrman said, not looking up from his task. "Now we will slip off your trousers..."

"NOW WE will slip off your trousers!"

Neal came fully awake at the words. It took a moment to place

them, then memory flooded into his mind. He opened his eyes and looked up at the ceiling. It was white enamel. Some reason for that. Oh yes, he was in the hospital!

"My hands!" he thought. He lifted his head to look at them. They stretched beside his body, but on top of the sheets. He studied the bandages anxiously until he was sure they outlined unamputated hands and arms.

"I must have dreamed they chopped them off!" he thought, his head sinking back onto the pillow in the weakness of relief.

The door opened. A pretty brunette came in.

"He's awake now," a voice sounded to the right.

Neal looked from the nurse to the owner of the voice. For the first time he became aware that there were others around him. He was in a large ward.

He looked back toward the door but the nurse was gone.

"How do you feel?" the man in the next bed said cheerfully. "Brother, you've sure been through hell this past week. Kept me awake darn near every night."

Neal jerked back to look at the man, saw the unnatural flatness of the sheets below the man's hips.

"Yeah, lost my legs. Both of them," the man said. "A cave-in on route seven."

"I saw that," Neal said. "I was the patrol that reported it."

"Thanks!" the man said. "Guess I owe my life to you. The doc said if he'd gotten there fifteen minutes later I'd a been dead. By the way, my name's Adams. Charlie Adams. Yours?"

"Neal Loomis," Neal said.

"Glad to know you, Neal," Charlie Adams said gravely. "I'm sorry I said that about you keeping me awake nights. You sort of have a right to—

since I owe my life to you. Anyway, I guess maybe it was the itching on my stubs that kept me..." His voice trailed off as the door opened again and the doctor came in, followed by the nurse and the interne.

"SO YOU'RE awake?" Dr. Green said cheerfully. "That's fine. We've had a lot of trouble with you. Remember any of it?"

"A little," Neal said. "Not much. And most of what I seem to remember seems more like dreams."

"It'll straighten out," Dr. Green said. "You were luckier than most of the others that picked up those pamphlets. That was because we got you hours earlier."

"How long have I been here?" Neal asked. "It seems like only hours, but this man next to me—Charlie Adams—he—"

"Yes?" Dr. Green said.

"Well—he seems to have been here quite some time, and I know he must have been brought here less than twenty-four hours before I was."

"I've been here three weeks," Charlie Adams spoke up.

Dr. Green frowned at the man, then nodded. "Yes, you've been here three weeks, Loomis. It took time to find anything that would touch the disease. It was in your bloodstream, of course. We cut off all the infected skin but it didn't do any good. Still, with that skin we finally found the counteragent and saved you. Wish I could say the same for the other victims."

"H—how many were there?" Neal asked.

"More than there should have been," Dr. Green said. "But we're ready for any new attacks."

"How many?" Neal repeated. He had shouted it, and now was surprised and a little alarmed at himself because he had had no intention of

shouting. He wasn't even angry, but his voice had been hoarse with anger.

"Quick, Dr. Ohrman," Dr. Green said.

Neal saw the two doctors spring toward him, one on each side of the bed.

"Get the hypo, Miss Phelps!" Dr. Green said jerkily.

Neal's mind was numbed by the utterly fantastic contradictions it was observing. He was quite calm—but he could feel the muscles of his face contorting with rage. He was giving no orders to his muscles, but it took both doctors to hold his shoulders and arms pinned down.

Everything about him seemed to have developed a will and mind of its own.

A slow lassitude seeped into the flesh of his left shoulder. It spread rapidly. He felt the lingering withdrawal of the doctor's fingers from his shoulder.

"At least it's an improvement," he heard Dr. Green say. "I think that's the first time true consciousness has manifested itself. Dissociation showed in his expression. That's something..."

Neal waited a long time for Dr. Green to finish his thought before he realized he had been asleep.

"Are you awake?" a voice sounded. "They told me to watch your eyelids. When they show your eyes moving underneath you're awake."

It was Charlie Adams. "Yes, I'm awake," Neal said. He opened his eyes and smiled ashamedly at him. "I guess I made an ass of myself."

"You couldn't help it," Charlie said.

"I don't know what hit me," Neal said. "I wasn't mad—"

"The doctor said something about your subconscious going wild," Charlie explained helpfully. "He says it's a little loose or something. He sort of

forgot anyone was around to hear him, and was talking to Ohrman about some of the others that've got what you've got. Raging wild beasts while they cry for someone to stop them."

"That'll be enough, Charlie," a feminine voice said.

Neal turned his head. The brunette nurse had come in. She smiled at him and walked up to stand beside his bed. He smiled back, a part of him wondering why she hadn't called the doctor in case he had another attack.

"We have you nicely secured so your body can't act up," she said, reading his thoughts.

He glanced down and saw the straps around his chest and arms.

"Oh," she said. He glanced up at her. "What came over me? I can't understand it!"

"It's a nerve virus," she said. "Something quite new. *They* found it first. The gangrene was only a symptom caused by its giving the skin cells a bad case of the jitters. But don't worry. You're quite definitely going to be all right again."

"Her name's Francis," Charlie Adams said eagerly. "And if you ask me, she's fallen for you, Neal. You ought to see the way she stands and watches you."

A slow flush spread over the nurse's face. Her eyes withstood Neal's stare for a moment, then lowered.

"Shut up, Charlie," Neal said.

"**WHAT'S** your name, punk?"

Einar Tharnsen doubled his fists and glared. "It's on that card in your hand, squirt."

"Wise guy, huh?" the guard said, his lips pulling back in a mirthless smile. Without warning his hand shot out and slapped viciously against Einar's cheek. "What's your name?"

Einar blinked from the blow, then instinctively went into a fighting crouch. From somewhere in the

depths of his mind a voice spoke. It was that of the judge. "*If you are intractable you will never be free.*"

The mad glaze in his eyes slowly softened. He straightened and relaxed while the guard watched him, mocking contempt in his expression.

"Einar Tharnsen."

"That's better," the guard said. "Ever run a shovel?"

"No."

"You're going to run one. Follow me." He turned his back on Einar and started across the yard.

Einar hesitated, then followed him. They got into a jeep. The guard drove it at a mad pace across rough ground toward a point a quarter of a mile distant where men and giant machines were at work.

"You'll have someone with you the first couple of days," the guard said. "This is your only chance for a soft job. If you don't make good as a shovel man you'll be emptying cement sacks."

"You mean one of *those* big things?" Einar said in dismay, pointing at the giant shovel scooping up two yards of semi-solid mud at a time and dropping it expertly into a waiting truck.

"What did you think I meant?" the guard sneered. "One you spade a garden with?"

He brought the jeep to a skidding stop near the behemoth of intelligent steel, stood up, and waved for the operator to come over.

The man leaped lightly from the cab and came over, grinning at the guard and looking curiously at Einar.

"New prisoner," the guard explained. "Show him how to run the shovel."

"Sure thing," the man said. "Come on, fella. Can't hold up the trucks." He gave Einar a welcoming grin and started back to the shovel.

Einar glanced at the guard, then

leaped from the jeep and followed, catching up with him.

"Name's Jeff," the man said. "Yours?"

"Einar."

"Einar, huh..." Jeff said. "Used to know a guy by that name. What's your last name?"

"Tharnsen. I'm from Cincinnati."

"Nope," Jeff said, reaching for a handhold and pulling himself up to the first step to the cab of the shovel. "That guy's last name was Pederson. Mine's Smith. Portland Oregon." He pointed at a rivet-studded box. "Sit there and watch. No use telling you anything until you get used to the feel of a shovel."

During the next half hour Einar watched with absorbed interest as Jeff casually put the tons of co-ordinated machine through its paces.

"Uncovered something a week ago," Jeff shouted, glancing at him. "Some bones. Big ones. I sort of watch every shovel load. Never can tell. I heard a rumor that they uncovered some sort of ruins further up north not long ago. Supposed to be strictly hush-hush, but it leaked out before they clamped the lid."

"I wouldn't be surprised," Einar shouted above the noise. "The theory's been advanced several times that the Arctic was the cradle of mankind."

Jeff looked at Einar and lifted his eyebrows in surprise. Einar didn't notice this. His eyes were on the shovel, studying the black earth it was forcing its way into for another load.

"**H**I, GOLDBRICKER." Marvin Swank fidgeted with his cap and smiled down at Neal.

"Hello, Marv," Neal said. "Take a load off your feet and tell me what's going on. By the way, this eager eyed pup in the next bed is Charlie Adams. He was walking up, got tired of

walking, and stuck his legs under a landslide."

"Smart lad," Marvin said, nodding cheerfully at Charlie. "They'd have been worn down to the hips by the time you got here anyway. This way you got a ride. By the way, where are you from?"

"California. Bakersfield."

"Oh," Marvin said, disappointed. "Ever been to Amarillo?"

"Yeah," Charlie said. "I was working there for about six months before I started up here."

"Yeah?" Marv said, hope dawning in his eyes. "You didn't by any chance ever hear of Thelma Swank did you? She had a dress shop on Polk Street..."

"No," Charlie said. "A relative of yours?"

"My wife," Marvin said. "I haven't heard from her."

Charlie looked at Marvin thoughtfully. "I wouldn't worry about her," he said. "I was there when the water came in. There was plenty of warning, and nobody got hurt as far as I know."

"Thanks," Marvin said. He turned back to Neal. "They tell me you picked up one of those Russian pamphlets with the nerve virus on it."

"I did," Neal said. "Stupid, but I can't think of everything. They've been dropping pamphlets about every third time they've come over here, and none of them had anything like that before."

"It seems we'll never learn they always have a reason for everything they do," Marvin said sadly. "They do something stupid like dropping pamphlets saying, *Workers arise!*, and we laugh at how stupid they are. Then we wake up too late to the fact that they were leading up to something. They got almost fifteen thousand with that nerve virus before we found the cure."

"Fifteen thousand dead?" Neal asked, dismayed. When Marvin nodded, "Then why didn't I die? I was among the first to get it!"

"They kept you doped," Marvin said. "I've been calling almost every day. Dr. Green explained it to me. The nerve virus works by getting into nerve cells and triggering them. They had to keep you alive because you were their guinea pig. Pretty ticklish there for a while. Your heart started acting up. Jumping around. They finally had to by-pass it with a mechanical heart. Then they found the counteragent and tried it on you. It worked."

"So that's why I was unconscious so long!" Neal breathed.

"That's the way most of them died," Marvin went on. "The virus got to the heart nerves and started working them. The heart would pump about ten times as fast as it should and build up pressure that ruptured blood vessels right and left. There's no more danger from that though. Everybody's inoculated. Gad! I've had inoculations against so many things now my blood's nine-tenths vaccines!"

He sat down and slumped out so that his legs stretched out an unbelievable distance from the chair.

"You kept up on the war news?" he asked. When Neal shook his head, "The Ruskies laid a hundred mile deep belt of radio-active dust all along the fifty-fourth parallel so that anyone in the lower half of Europe and Asia who tried to get north to safety would die before they got across the belt. Not only that, they had over three million of their own troops below it. They're still there, raising hell. Think they're going to be pulled back across by troop transport when the war's over."

"Maybe they will be," Neal said. "Russia's going to need all her manpower to rebuild with the snow and ice gone."

"Nah," Marvin said. "She's got too many, same as us. By the way—another scientist came out with a theory about why the Earth speeded up seven minutes a day in its rotation after the Polar ice melted."

"Can you get a copy for me?" Neal asked. "I'd like to study it while I'm lying here. That problem intrigues me. Everything we know says that if anything, it should have slowed down a bit."

"I think I can," Marvin said.

A pleasant feminine voice sounded from the doorway. "You'll have to go now. Visiting hour's up."

Marvin glanced around quickly. "Okay," he said. He kept his eyes on her as she came into the room and passed the tips of her fingers against Neal's temple to count his pulse. He grinned at Neal. "I think I'll pick up that nerve virus myself," he said.

"You don't stand a chance," Charlie spoke up. "Frances is going to marry Neal when he gets out. I've already got it fixed."

"Yeah?" Marvin said. He opened his mouth to say something and saw the expression on Neal's face. His grin came back. "Well, far be it from me to take her away from him, better man though I undoubtedly am."

He went to the door. "So long," he said. "I'll see if I can find that paper, Neal. Don't go taking any long walks on short piers, Charlie."

A look passed between Frances and Neal. She followed Marvin out into the hall. He dallied, looking at her expectantly.

"I wanted to tell you," she said, "that I know Neal's married. It's just that—well, I don't know how to explain, but we feel that Charlie Adams shouldn't be told that. His interest in the supposed hudding romance between me and Neal helps keep him cheered up."

"Yeah?" Marvin said. "Want to

know what I think? I think you should stop kidding yourself and admit you love—Charlie!”

He walked down the hall, conscious of her startled eyes on his back.

EINAR GRABBED the handhold and leaped lightly up into the cab of the shovel. “G’morning, Jeff,” he said cheerfully.

“Hi, Einar,” Jeff said. “Today’s the day you run the shovel and I watch.”

“Good,” Einar said. “You know I have to laugh. I’m supposed to be being punished or something, and instead I’m learning a job I really like. The worst punishment they could dish out to me right now would be to take me off this job.”

“Don’t get too cheerful,” Jeff warned. “They can’t use any more shovels on this project. I think as soon as you can handle her they’re going to send you up north farther.”

“That doesn’t make any difference,” Einar said. “It’s the job. I never knew before the thrill of handling a few tons of metal with a personality.”

“Wake her up,” Jeff said, smiling.

Einar got into the operator’s seat and stepped on the starter. The motor came to life at once with a throaty roar that settled into a contented rumbling purr.

“Just take everything calm,” Jeff warned. “Don’t go getting excited about anything. If you do you’ll pull on the wrong levers and maybe bash in the cab of one of the trucks.”

“Did you hear about that nerve virus the Russians used?” Einar said conversationally.

“Yes,” Jeff said. “I heard. Only—was it the Russians?”

“Of course it was the Russians!” Einar said, looking at Jeff in surprise. Jeff stared back at him. Einar frowned. “What do you mean, was it the Russians? That flying saucer stuff has been pretty well exploded. Don’t

tell me you think it was men from Mars!”

“No,” Jeff said. “Did you ever stop to think how silly it would be, the Ruskies going to all that trouble to give away the secret of a weapon like the nerve virus? Why didn’t they make an all-out attack and give the germ to the whole lot of us. We’d all have died, doctors and all, before a cure was found. The war’d be over!” He shook his head thoughtfully. “No, I don’t think it was the Russians.”

“Who, then?” Einar demanded.

“Us,” Jeff said. “That’s the only thing that makes sense. It wouldn’t matter if a few thousands of those coming up died. There won’t be room for all of them anyway.” He spread his arms in a gesture. It’s killing two birds with one stone. Getting rid of a few thousand undesirables and testing a new bacteriological weapon at the same time. Only they’d never dare make *that* public.”

“But those planes!” Einar said. “This guy that came into our block last night said he saw the Russian planes overhead. They didn’t drop any of the pamphlets along his route, but he saw them fly over.”

“We’re capturing Russian planes all the time,” Jeff said. “What’s to prevent us using them for a thing like that?”

“I don’t believe it,” Einar said, shocked.

“According to what they tell us,” Jeff said, “the Russians are all bad and we’re the fair haired boys. I’m of the opinion we don’t know the half of it.”

Einar frowned uncomfortably. “I’ve never thought much about it,” he said. “What *are* we fighting about?”

“You tell me,” Jeff said, grinning.

“What are you driving at?” Einar asked.

Jeff puffed studiously on his brown paper cigaret. “Just this,” he said.

"There's a lot of us in these concentration camps up here. When the time is right we could take over, join with the Russians, and the war would be ended."

"Hey therel" a voice shouted. "Get that shovel goin'!"

"NO, I DIDN'T forget it," Marvin Swank said. He reached into a pocket and brought out a folded sheet of newspaper. "This fellow—a Ph.D. by the name of Mason—has his theory pretty well worked out. He's got the math there, too. All it needs is some new surveys to check his results."

"Thanks, Marv," Neal said, laying it on the stand beside his bed. "I'll read it later."

"What's it say?" Charlie asked.

"This fellow, Mason," Marvin said, "claims that starting about five miles down, the Earth is semi-molten in state, due to the tremendous pressure. That even iron and granite that far down begin to act like syrup in some ways. When the billions of tons of ice and snow at both poles started to melt and flow toward the equator it took some of the weight off the poles. As a result, the balance on the fluid center shifted, and that center shifted its shape to compensate for it, causing the diameter at the equator to become a little less, and the diameter at the poles to become a little greater. That made the ocean level at the equator go up and raised a lot of land up here and in the Antarctic. But the angular momentum of the entire mass had to remain the same, and the only way it could was for the Earth to speed up its rotation. He's got the figures predicting just what they'll find the measurements to be now."

"But why weren't there earthquakes and things like that?" Charlie asked.

"Mason says the reason there

weren't was that the solid crust could stand the little stretching and compressing that took place without shifting appreciably. One thing that checks already is the amount the oceans have risen in the tropics. Even the most fantastic estimates of the amount of water contained in the snow and ice at the poles couldn't account for all of it."

"I still can't see how all that would speed up the Earth though," Charlie said.

"Look at it this way," Marvin said. "At the equator it was travelling a thousand miles an hour, roughly. Let's say a thousand to keep it simple. Twenty-four thousand miles around the world, and any spot goes all the way around in twenty-four hours."

"Okay," Charlie agreed.

"So then it shrinks down to twenty-three thousand miles around," Marvin said, "but it still goes a thousand miles an hour because there's nothing to slow it down. So the spot gets all the way around in less than twenty-four hours."

"Yes," Charlie said. "I see it now. I think he's right."

Neal and Marvin looked at each other and smiled imperceptibly.

"Were you awake during the earthquake last night, Neal?" Marvin asked.

"No," Neal said. "Charlie was, though."

"The radio says it was pretty bad in the United States," Marvin went on. "The breakthrough at the Isthmus expanded too fast. The few feet of difference in the level of the Atlantic and Pacific down there built up a momentum of several billion tons once it got started. Blowing up a couple of mountains with buried hydrogen bombs did more harm than good by weakening the bedrock barrier, too."

"God!" Neal muttered, his eyes

wide. "It seems that anything we do lately takes on world proportions. Those atom bombs in Europe—how could we have known?"

"What about that scientist that tried to tell them at the Pentagon?" Charlie asked.

"I don't believe that," Neal said quickly. "They have stories like that about every war. They had one about the British sinking the ocean liner with their own submarines, bringing us into World War I, instead of the Kaiser's U boats. They had the one about Roosevelt knowing Pearl Harbor was going to happen, but let it, to incite the American public to enter World War II. You'll always find stories like that."

"But *somebody* must have known!" Charlie said gravely. "Why even I heard stories about atom bomb weather."

"The point is," Neal said, "nobody did know. At least *I* don't think they did."

"I guess I don't either—now," Charlie said.

"How're your legs coming, Charlie?" Marvin asked quickly to get the subject changed.

"Pretty bad sometimes," Charlie said. "I get the feeling that they're itching, or cold, or wet, or moving around by themselves." He shook his head. "But of course they aren't. And Dr. Ohrman gives me a shot when it gets too bad."

Marvin looked at his watch. "Got to run," he said. "I'm late now. I just ran in during my lunch hour instead of waiting until Saturday to bring you that article, Neal. Take care of yourself. You too, Charlie."

HE' LOOKED speculatively at the mud spattered bus with its pile of worn-out tires and new tires still in their wrappings on the top, and the weary faced women and children

still disembarking and huddling in a compact group, waiting to be told where to go.

Skirting the tired group, he entered the station, nodding to the driver, though he had never seen him before. Driver and bus had made a one-way trip. From now on they would remain in the northland, transporting people to the various new centers as they opened up. Ten thousand of them in a year and a half, and each loaded with people...

"You're in charge?" the driver asked. "Here's the passenger list."

"Thanks," Marvin said. "That girl over there behind the desk will tell you where you're to go. A mechanic will take your bus to the garage. Have a nice trip?"

"Nice?" the driver echoed. "Ha! But we didn't have much trouble. They could get something better for a road though. That metal grill stuff tears the tires, and once they start to go."

"I know," Marvin said. "I've made the recommendation. Every driver says the same thing. The big trouble, they inform me, is that they have to shift the road so much due to slides. Can't pave it with anything permanent."

"Well, it ain't my headache any more," the driver dismissed the subject. "One of the women died on the way up. She's in the back seat wrapped in a blanket."

"Her name?" Marvin asked quickly.

"It was just last night," the driver said. "You can find out when you check them off." He started toward the desk Marvin had pointed to, then turned back. "She was—kinda nice. Somebody's grandmother, I guess." He turned again, quickly as though ashamed of this display of sentiment.

Marvin went slowly over to his own desk, his eyes skimming the passen-

ger list. They stopped at a name, frowning.

"Damn," he muttered. "That name's familiar. Mrs. Einar Tharnsen. Where have I heard it?" He picked up the hand mike lying on his desk and pressed the button at its base. "Will Mrs. Einar Tharnsen please step inside?"

He laid the mike down and watched the street door expectantly. The woman who came in was rather pleasant looking, with straw colored hair done up in a thick braid nesting on top of her head. Two boys and a girl came with her—the boys, quiet and brave; the girl, about six, holding her mother's hand, eyes wide with fear.

Marvin watched them approach his desk. He knew at once he had never seen them before. Suddenly memory struck him. He sucked in his breath.

Mrs. Tharnsen stopped, her eyes mildly curious. "I'm Mrs. Tharnsen," she said quietly.

"Would you have your children wait outside please?" Marvin said politely.

"Is it something about Einar?" she asked numbly. "You can tell me in front of them, please."

Marvin hesitated, looking searchingly at the three child faces waiting stoically for him to speak. He realized suddenly that they were waiting for him to tell them Einar was dead.

"Oh! It isn't that bad!" he said, chuckling. "Mr. Tharnsen got into a little trouble on the way up and was arrested. He's safe enough—in one of the labor camps. And maybe now that you're here you'll get to see him. Go over and sit on that bench and I'll have one of the girls make a few calls to see if we can fix it."

"H-he wasn't killed by the nerve virus?" Mrs. Tharnsen asked. She stood there for a moment looking at Marvin.

"Pop's alive!" the older boy shout-

ed. "See, mom? I told you they couldn't kill him!"

Mrs. Tharnsen was weeping quietly. "Come, children," she said. "The man told us to go over and sit on the bench. Waiting won't be hard now. Come on, and stop jumping, Hannes—or you'll be in jail too!" She flashed Marvin a tear-brightened smile; then, alternately weeping and chuckling, she led her brood over to the bench against the drab mud block wall.

"See if you can get the court's okay for—" Marvin said to the girl at the desk nearest his.

"I know what to do, Marv," she said.

"And get them over to take care of the dead woman, too," Marvin added. He picked up the mike. "All of you form a line beginning at the door and as close to the building as you can..." And through the window he saw the tired bus passengers move to comply.

"**H**OW YOU feeling this morning, Neal?" Dr. Ohrman asked, placing his fingertips against Neal's temple and frowning at his wristwatch.

"Never better, Fred," Neal said. "When are they going to let me out of here?"

Dr. Ohrman didn't answer. After a moment he took his fingers away from Neal's temple and went around to the foot of the bed and took the chart off its hooks.

"Hm," he said. "No attacks for seven days now! How about relapses of consciousness, Neal? Any more of those mysterious jumps of fifteen minutes to a couple of hours?"

"Nope," Neal said. "I doze off several times a day, but it's just sleep. No blinking my eyes at four o'clock and finding it suddenly eight-thirty."

Dr. Ohrman went around to the side of the bed again and touched the back of Neal's right hand gently, bending over to look closely at the

spiral pattern of white and pink skin.

"Skin graft is doing OK," he said to himself.

"A little numb," Neal said, "and here—" He touched a spot on his wrist. "When I touch here I'd swear I'm touching my arm up above the elbow."

Dr. Ohrman smiled. "That's probably where that section of skin came from." He traced with one finger. "We sliced thin strips of skin along the arm and spiraled them over the areas we took the infected skin from, leaving them attached at one end. That way there was just a narrow gap between each strip for scar tissue to fill in. Eventually your mind will relocate the sources so that you'll lose the sensation of being touched where the skin came from."

He turned Neal's hand over and looked at the fingertips.

"We'll have to take your fingerprints before you leave, so that you can be identified from the new ones. Are you able to feel anything with your fingers?"

"Just pressures," Neal said. "I do all right when I'm watching what I touch, but when I close my eyes..."

"That may be permanent," Dr. Ohrman said. "It won't bother you to speak of, and your new—" He stopped abruptly, biting his lip.

"New what?" Neal asked.

"I suppose I may as well tell you," the doctor said. "Those tests we've been running you through—fatigue and reflex tests—show that for some unaccountable reason your reaction time has speeded up about fifty percent and your fatigue time has lengthened to something fantastic. We don't know if it will be permanent, of course."

"You mean those tests where I wiggled a finger until it was too tired to move any more, and pressed a button when a light flashed on?"

"Yes," Dr. Ohrman said. "There's some slight physiological change in your nerve fluid brought about by the virus or the antitoxin, we don't know which. It's made you just about the fastest thing alive."

"I've noticed it a little," Neal said. "I just thought I was still nervous. Jerky."

"I might as well tell you the rest of it while I'm at it," the doctor said. "The Government wants to use this new faculty of yours as soon as we release you."

"How?"

"I don't know that," the doctor said. "They didn't tell us. All I know is that they're very interested in you all of a sudden and want us to release you for active duty as soon as possible." He straightened up and stood looking down at Neal. "So I guess we'll have to let you go—tomorrow. I hate to. I'd like to keep you here and study you another month." He turned abruptly and left the room.

"Golly!" Charlie said, wide eyed. "Maybe they want to transfer you to U.S.O. and make you into a boxer!" A concerned look appeared. "And what about Frances?"

"Why don't you get wise to yourself, Charlie?" Neal snapped, suddenly irritated. "Everybody but you knows she's in love with you."

"You're wrong!" Charlie said quickly. "I haven't got any legs! Why—"

"Yeah, you haven't got any legs," Neal snapped. "You're a coward. You want to give up and be a cripple. You don't want to get a couple of mechanical ones and spend hours learning to walk, and then dance, and work. You feel sorry for yourself or you wouldn't try to marry off the girl you love. You'd fight for her if you weren't yellow. You'd—" He stopped, brought up short by the expression on Charlie's face.

"You shouldn't have said that, Neal," Charlie said.

"This is a man's world—what there is left of it," Neal said. His lips worked soundlessly. Suddenly he plopped over with his back turned to Charlie.

It was a long time later that Charlie's voice came, quiet and sort of wondering. "You know, Neal, the world now is something like that. A man who's lost his legs. And—and—"

"Sure, Charlie," Neal said, his voice muffled.

"**THEY'RE** transferring you to camp fifty," Jeff said as he entered the cab of the shovel and dropped down onto the rivet-studded tool box. "So—tonight you meet the big boy and you get your instructions."

"Good!" Einar said without turning as he brought the loaded shovel over a waiting truck and dropped two yards of black wet dirt into it, then swung the shovel back for another bite at the embankment.

"How'd your wife make out?" Jeff asked. "I heard she came to see you again today."

"They're sending her to the Repulse Bay settlement," Einar said.

"She'll be okay there," Jeff said. "Nice place. You won't have to worry about your family."

"Well, I can be with them in four months," Einar said.

"Four months?" Jeff said. "Look, Einar, I thought you were taking this seriously!"

"I am," Einar said.

"Well, you don't think this's coming off in four months, do you?" Jeff said. "It'll take maybe six months more. Maybe not, but we can't be sure. You're going to have to pop a guard when you get to camp fifty. Not anything to get you a punishment job, but enough to keep from

getting out on the minimum."

"Why?" Einar asked. "Can't I be just as good—even better—if I'm outside where I can get hold of things?" He glanced at Jeff questioningly.

Jeff shook his head. "The whole thing's being kept in the labor camps," he said. "When the time comes we've got to know where each man is, so he can get his orders and act. We can't risk setting up communications and organizations where there's a lot of smart intelligence officers with big eyes and ears. They're not looking inside the labor camps. Not for revolution."

"How many men have we got now?" Einar asked, bringing a full shovel over the roadway and holding it stationary while an empty truck drove up.

"Maybe only you and me," Jeff said. "None of us had better learn too much. If they got wind of this thing they'd torture everything out of you. There's a war on, you know." He stood up and hung on as the cab swung ponderously around, carrying the shovel to the embankment again. "I'll hop off now," he said. "I'll see you after chow tonight in the recreation yard."

JEFF WAS leaning against the mud block wall beside the entrance to the yard as Einar came out. He looked at Einar meaningfully, then started to stroll leisurely through the scattered crowd of two hundred prisoners, hands in pockets, nodding to this and that man as he passed them.

Einar stood watching until Jeff had gone about fifteen feet, then slowly followed. The guards on the wall would notice nothing. They watched for only two things: Rapid movement such as running or fighting, and the collecting of small groups.

Never directing his face toward Jeff, Einar kept his eyes on him.

After a while he saw Jeff pause beside a heavy shouldered man with jet black hair, turn slowly, and stare in his direction.

The black haired man looked at Einar briefly, made an imperceptible gesture with his head that indicated he wanted him to follow, then started strolling in the general direction of a relatively deserted corner of the yard.

Einar looked at Jeff, who nodded slightly and looked meaningfully at the black haired man's back. Einar dipped his head, stretched as though tired, and slowly moved after the man.

The black haired man finally stopped against the wall. Einar looked doubtfully up at the guard stationed in a small wooden shack a few feet overhead. The black haired man glanced casually up at the wooden faced guard.

"Come on over here," he said to Einar. "You don't have to worry. He's one of us." He smiled at Einar as he approached. "So you're the new recruit," he said softly. "Good boy. You won't regret it. We're going to succeed. Got to, or this war will go on forever. I'm Don Welles. You're Einar Tharnsen. I'm not the big boy in spite of what Jeff said. Nobody will know who the big boy is. Maybe he's that guard up there!" He grinned. Suddenly he held out his hand. When Einar took it he shook hands warmly. "For peace," he said. "May she come soon."

"For peace," Einar repeated clumsily.

"Now listen carefully," Don Welles said. "The way we identify one another is by rubbing your eyes with your middle finger on your right hand. Do that occasionally at camp fifty where you're going, and watch the others. In a week or so you'll know which are with us. Two of the guards up there are. One of them is as big

as you. He's the one you're to sock after you've been there a few days. He has orders to give you the excuse. Unless you get instructions you're to do nothing except wait. Got it?"

"I guess so," Einar said.

"Good," Don Welles said. "And from now on you don't know me. And—when the revolution succeeds you won't have to worry. You'll be on top." As he said this he laid a hand on Einar's shoulder and looked at him sternly.

Then he was walking away, strolling as though going nowhere in particular. Einar stood where he was, watching him depart.

MARVIN looked up. Shoving his chair back he leaped to his feet, a pleased look on his face.

"Why you son of a gun!" he said. "How the devil did you get out of the hospital? And why did you keep it as a surprise?"

"I didn't," Neal said as Marvin took him by the shoulders and held him out at arm's length. "Dr. Ohrman just told me yesterday evening."

"Well," Marvin said, releasing him, "back in harness for you again, I suppose. Sitting on high and watching the poor wretches down below."

"Got time to have coffee with me?" Neal asked.

"I'll take time," Marvin said. "You girls hold things down while I'm gone."

He put an arm over Neal's shoulders and forced him toward the door while the WAAC personnel looked on, smiling broadly.

When they reached the sidewalk he sobered. "What's up, Neal?" he asked. "You got out awfully sudden—and you wouldn't have dropped in on me at the job unless you're going away. You'd wait and surprise me at the officers' club tonight."

"Any other clues, Mr. Holmes?"

Neal asked, a smile playing on his lips.

"As a matter of fact, yes," Marvin said. "You changed the subject without comment when I said you were going back to the old patrol job."

"You should be in M.I.," Neal said, smiling broadly. "You've missed your calling."

Marvin looked around secretively and brought his finger to his lips dramatically. "Maybe I am!" he said in a hoarse whisper.

"Soviet or U.S.?" Neal asked.

"Both," Marvin said brightly. "And am I making money! A savings account in three Kansas City banks—"

"They're under water," Neal said.

"Verkhoyansk?" Marvin tried.

"I believe you," Neal said. Grinning, he grabbed the arm of a passing M.P. and stopped him. "Arrest this man," he said, pointing at Marvin. "He's a Russian spy."

"Nyet nyet!" Marvin said. "I'm on vacation yet. Py the vay—" He sidled up to the now grinning M.P. "Are you a Comrade? Nyet? Too pad. Ve could drink wodka ofer old times."

"He has a savings account in Verkhoyansk," Neal said.

"Money?" the M.P. said. "That makes you a capitalist. On your way before I report you to the I.R.B."

"Comes the revolution, Comrade!" Marvin said, glowering at the M.P. and pushing Neal ahead of him down the street.

The M.P. watched them, the smile on his face just a bit nervous. Superior officers didn't usually behave that friendly toward enlisted men.

"Know where you're going?" Marvin asked, his face suddenly serious.

"Officially no," Neal said.

"Unofficially?" Marvin looked at him questioningly.

"If we hadn't been kids together back in Spokane I wouldn't tell even

you," Neal said. He waited until there was no one walking within earshot. "I'm being sent to New Mexico."

"Patrol duty?" Marvin asked. When Neal shook his head Marvin uttered a soft low whistle of amazement. He turned to Neal, suddenly unbelieving. "But you're just out of the hospital! What's the matter with them?"

"My reflex and fatigue indices were changed by the nerve virus or the cure, they don't know which," Neal said. "They don't know how long it will last so they want to use me while it's there."

"Then that's it," Marvin said, his face filled with wonder and hope. "They're ready to use men."

"I guess it means that," Neal said. "It's been a public secret that they've been all out for space travel since right after the outbreak of the war. A year ago there were reports of an atom explosion on the Moon, but the Government announced officially that no American rockets were yet advanced enough for that, and if it had happened it must be the Russians."

"It could have been, too," Marvin said. "Watch out when you get up there."

"If I get up there," Neal smiled. "My assignment may be a desk job, for all I know."

"How's Charlie taking it?" Marvin asked.

Neal frowned. He started to speak several times. Finally he said, "I feel terrible about him. I—shot off my mouth at him. Go up and see him, will you? I feel like hell about it..."

"Of course I will," Marvin said, pushing open the door to the canteen.

"**A**ND," MARVIN said when they were comfortably seated by a window, "if you get a chance, take a look at Amarillo and write me what it looks like. You might even keep

your eyes peeled for Thelma. She's a tall blonde, kind of—"

"I know," Neal said. "Statuesque. You showed me her picture, too." He smiled. "If I find her I'll tell her how you died bravely, and on your death bed you made me promise to find her and give her a good time. And *will*..." His voice trailed off as his eyes widened with surprise.

Marvin turned to follow his gaze. Frances, the nurse, was standing in the doorway across the room, searching over the crowded room. Her gaze jerked in his direction almost psychically. Her face lit up with recognition, then settled into grimness as she started over.

"Trouble, Neal," Marvin muttered. "What the hell did you say to Charlie?"

"I told him she was in love with him and if he wasn't a coward he'd face life and marry her," Neal said under his breath. "This is the first time in my life I felt an irresistible urge to find a hole and crawl into it. He just struck me wrong, worrying about me and Frances after I left."

"Well, you've got it coming so take it," Marvin muttered out of the corner of his mouth as Frances came up to their table. Then, brightly, "Hi, Frances. Come to say goodbye to the girded warrior?" He grinned at Neal.

Frances's eyes were on Neal, wide and staring. Abruptly she leaned forward, gripping the edge of the table. "What did you say to Charlie Adams before you left the hospital, Neal?" she demanded.

Neal watched his finger making small circles on the table top. "Why—nothing much," he said. "I just—"

"Go on," Frances said, her voice controlled fury.

Neal looked up at her helplessly, then dropped his gaze back to his wandering finger.

"—told him that I wished him luck, and—and sort of hinted, indirectly, that you were in love with him and he should—"

"He should what?" Frances demanded.

"Well, sort of try real hard to master the mechanical legs and—" Neal's finger stopped tracing. He looked up. "I'm sorry, Frances. I made an ass of myself. An utter stupid ass. If there's anything I could do to undo it I would. I wish I could blame it on the nerve virus, but it was just plain stupid reaction without thinking. He was worrying about what would become of the romance he imagined was budding between you and me. I couldn't leave him with that, being a martyr..." His eyes were half angry, defiant.

She continued to stare at him, her expression unchanging. Something in her eyes alarmed Neal.

"What's happened?" he asked. "My God! Don't tell me he tried to kill himself!" He half rose from his chair, horror on his face.

The answer was on her face.

Marvin moved suddenly and was up, his arm around Frances's shoulders.

"Come on, Neal," he said gruffly. "We're going to the hospital. And you're going with us, Frances, and we're going to straighten this thing out. It's your fault in a way, too, you know," he added sternly. Out on the sidewalk he asked, "How'd it happen? Or do you know?"

"He c-crawled out of b-bed and dragged himself to the win—" she couldn't go any further.

Marvin was hurrying her almost at a run to avoid the curious stares of passers-by. Neal was keeping pace, an expression of misery etched into his features.

When they entered the hospital Frances shrugged off Marvin's hold

and dried her eyes, holding her head erect with a semblance of her old professional calm.

She led them to the ward Neal and Charlie had occupied. The door was closed. She opened it. Marvin and Neal saw that Neal's bed was made up and empty. Screens were around Charlie's bed.

Neal's face cramped queerly at the sight of doctors' feet under the bottom part of the screen.

Noiselessly, her face infinitely sad, Frances went to the screens and pulled them aside enough to peek in, with Neal and Marvin crowding behind her, holding their breath.

A SHEET covered Charlie up to his chest. He was flat on his back, his head turned sideways with his face against the pillow. Beads of perspiration dotted his forehead. His eyes were closed and his lower lip sucked in between his teeth.

Dr. Green was taping Charlie's arm against his chest while Dr. Ohrman held it rigid. In a moment they finished.

"That should hold it until we can get him through X-ray," Dr. Green said, his voice cheery. "Come in and give him another two c.c.'s of the same sedative in an hour. See that he gets plasma. And get a nurse in here!" The last was politely exasperated.

He half turned, then noticed Frances.

"Oh there you are, nurse," he said. "Where have you..." He stopped talking when he saw Frances wasn't even hearing him.

Charlie had opened his eyes and jerked his head around to look. His eyes rested on Frances for a moment, went past her to Neal. He turned his face against the pillow again and closed his eyes, his expression agonized. After a moment he forced his

eyes open again and turned his head with slow deliberateness to face them.

"Hello, Neal," he said weakly. "Come on in."

Neal looked at Dr. Green for permission. Dr. Green dipped his head in unwilling acquiescence and pushed the screen back to make more room.

"What's this—" Neal began. He stopped, with a feeling that anything he might say would be worse than saying nothing. He went very slowly past Frances and stood beside the head of the bed while Charlie kept watching him.

"I guess they told you, Neal," Charlie said. "I'm sorry. I wanted to wait until you were gone so far you wouldn't hear about it, but I couldn't."

"You shouldn't have," Neal blurted. "You had everything to live for." He turned his head and looked at Frances, a grim light in his eyes. "You still have."

"No, Neal," Charlie said. "Remember I said the world was like a man who's lost his legs? After you left this morning I realized it was. Only it's just an unthinking jumble of humanity and doesn't comprehend what's happened to it. I know what's happened to me. I won't let Frances tie herself to a cripple who will have to walk around on metal legs and smile and be proud of being able to walk!" He was speaking too loudly.

Neal was twisting in mental torment.

"You'd better go," Dr. Green said, but no one heard him.

"And you just think she loves me," Charlie went on. "I know. You think she loves me, and you wanted to get out of the picture so you wouldn't be taking a girl away from a helpless cripple—"

"Shut up!" Neal shouted. "Damn you, Charlie. Don't you know? I'm married! I don't love Frances. She doesn't love me. She loves you, and

you'd better get the guts to face it. Running out will only break her heart. What the hell do you think love is, anyway? La de da with perfumed lace?" He glared down at Charlie, his fists working at his sides, his face contorted into a mask of self torture, regret for what he couldn't stop before it was out.

Suddenly Frances pushed past the screen and sank to her knees by the bed.

"He's right, Charlie," she said. "Oh, darling, you poor deluded darling." Her eyes were brimming with tears as they locked with his, and his were looking up out of the depths of the death-wish to the first rays of the sun, rising above the horizon of Life.

Neal sagged with a reaction of weakness. Marvin gripped his arm. "Let's go," he muttered against Neal's ear. He led Neal unresistingly toward the door.

THE SOUND of the truck became different. Einar awakened with a strong impression that it had stopped, but it hadn't. It was going faster. The tires were humming. There wasn't any slow upheaval as bumps were taken. Instead there was the rhythmic thud of tires thumping over regularly spaced tar expansion joints in concrete.

He stood up so as to see over the body of the truck through the heavy wire mesh that kept him and the other twenty assorted prisoners from escaping. What he saw made him oblivious of the man who had sat next to him slumping down and occupying his seat.

He might have been in California or the Delta country of prediluvian Texas. Mathematically exact rows of young trees whizzed past, stretching back from the highway to be lost in the distance. Verdant alfalfa grew to luxurious depths in between the rows

of trees. And the highway itself seemed to be of real concrete—not steel grill or packed mud.

Einar stumbled over sprawled feet of sleeping men to where he could look alongside the driver's cabin.

"It is concretel!" he muttered incredulously.

What had happened? Had it all been a vivid dream? A mile ahead he could see signs of a city of some kind. A billboard flashed by. It was gone as he noticed it, so he couldn't catch what it said. He watched anxiously for another one to appear. In a moment it did.

One mile to New Fernando, the capital of Foxe Basin, it read. *Pop. 13,487.*

There was more on the sign but it was gone before he could read on.

"Looks just like home, doesn't it," a quiet voice at his shoulder said.

"Yes!" Einar said. He stared in fascination at a service station they were passing. No cars were at the gas pumps, but near the grease rack was a glistening black sedan with its hood raised and the coveralled posterior of a service station attendant bent over a fender. When it was gone he turned to the man who had spoken. "How'd this get here?" he asked. "I thought there was nothing but mud and people up here yet."

"This was put in last year by private capital," the man said. "I remember reading about it. It was when everybody was thinking this upset of things wouldn't be as bad as it is. Foxe Basin is Canadian though. None of us get to come here and stay."

"Oh," Einar said, disappointed. "I thought maybe..."

"Ours will be just as good when they get going," the man said. "Give us another year. Or even more. Personally, I want to settle somewhere in Baffin Bay. The soil is really rich there. Plant alfalfa and soy beans

there as thick as they'll grow for five years to get all the salt out of the ground, and then you have something—besides a small fortune from the alfalfa and soybeans."

"I guess this's on the way to camp fifty," Einar said. "I wonder where it is?"

"It must be on Baffin Island," the man said. "I studied the geography up here pretty well. Base is just west of the southern tip of Southampton Island and we're headed northeast right now."

"I'm glad we passed through this," Einar said. He rubbed his eye with the middle finger of his right hand slowly as though it were an absentminded habit. "It shows me what can be done up here. Maybe things won't be so bad after all up here."

"Heck no," the man said. "It's a new frontier. Just like Oklahoma and Kansas were at one time. In ten years there won't be no difference. Concrete highways, roadhouses, railroads."

"But farther south," Einar said. "Why don't they fix that up too instead of making us walk through it all?"

"Some kind of treaty with Canada maybe," the man said. He watched Einar rub his eye again with his middle finger. "Something in your eye?"

"Yeah," Einar said. "I think it's out now." He lowered his hand. "What about this treaty with Canada?"

"I think the United States and Canada must have made some kind of a treaty to allow us to come up here," he said. "I don't think the U. S. would let a few million of its citizens become Canadians without a struggle."

"I thought it was just part of the war setup," Einar said. "Canadian and U. S. defenses were combined, and industry, too. When everything's settled down they'll straighten it out."

"Oh," the man said. "Maybe that's

it." He was studiously silent for a minute. Suddenly he chuckled. "I was just thinking," he explained. "Suppose Canada insisted that we become citizens. There's only about eleven or twelve million Canadians, and there'll be a lot more than that of us. Then we could vote Canada into the U. S. and they couldn't stop it!"

"Could be," Einar said. "I wonder how things *will* be when it's all over? Somebody told me before I started up here that I was a fool to come. When the atom bomb weather gets back to normal it'll freeze all year round up here again."

"Naw," the man said. "That won't happen. Maybe in a few centuries but not in our lifetime. It's going to be just the other way around. They'll have icebergs at the equator and summer all the time at the poles."

"How do you figure?" Einar asked.

"Things are going back to the way they were during the ice age," the man said, looking at Einar owlishly. "They've found plenty of evidence that at one time the human race lived in the north. I think the Garden of Eden was at the North Pole, and mankind spread from there."

"What's your name?" Einar asked, suddenly interested in the man.

"Harry Drake. I'm from Kansas City."

"I'm Einar Tharnsen. I came from Cincinnati."

"Oh! Just like me!" Harry said. "Your home town's under the ocean."

"Yeah," Einar said. "Tell me, Harry, if the birthplace of man was at the North Pole and there was an ice age, how do you tie them together? When the glaciers extended all the way down to the United States—"

"There weren't any in the Arctic then," Harry said. "They were piled up in the temperate zone and maybe even on the equator. The air currents were reversed then just like the atom

bombs reversed them. Ever see a whirlpool form in a washbasin? You get it started and it keeps going by itself. Stick your finger in and stir the other way. It makes things boil around for a minute, then presto! You have a nice stable whirlpool going in the opposite direction."

"But that isn't—" Einar began.

"Yes it was!" Harry said. "I read all about it and that's exactly what took place. The way things were before they exploded the atom bombs in Europe, starting about a hundred miles up off the surface there was a steady wind from the equator toward the North Pole all the time. There the air went upward, and about five hundred to a thousand miles up it went the other way, toward the equator. When it got there it came down and started back toward the pole. The atom bombs blasting in Europe hit down hard enough to blast everything. But what they didn't stop to think was that it hit up as well. And every time one of them hit up it raised hell with the upper air currents. And finally it split the big whirlpool into two smaller ones."

"It did that all right," Einar said, "but you've got the rest wrong. It went the other way. A hundred miles up it went south, and a thousand miles up it was going north."

"No, *you* got it wrong," Harry said. "Anyway it doesn't make much difference. The idea is the same, and the end result is the same. Don't you see? Now the same upper air currents exist in the temperate zones as did exist at the North Pole! And before long there won't be anything at the equator except ocean, so the only place there'll be for people will be the Arctic! That's why I'm going to settle as far north as they'll let me. Watch and see, Einar. In ten years they'll be having arctic weather all over the U. S..."

"What about the southern half of the world?" Einar asked. "The atom bombs in Europe couldn't have upset the air currents down there."

"Who cares what goes on down there?" Harry said. "All I care about is what's going on up here! And anyway," he added triumphantly, "there never was an ice age in the southern hemisphere!"

"Are you sure?" Einar asked.

"Sure I'm sure," Harry said, "or they would have mentioned it along with the ice age in the northern hemisphere. So it doesn't make any difference."

"What do you mean, it doesn't make any difference? We should have gone south instead of north!"

"Not enough land," Harry said, shaking his head. "Have you looked at the maps? The eastern half of South America is going under water. So is two thirds of Africa and nine tenths of Australia. And half of China and nearly all of India are already so far under you can sail an ocean liner to Tibet."

EINAR TURNED and watched the trim orchards of Foxe Basin whiz by. A frown settled on his face. How much of what Harry Drake had said was true? Probably almost none of it. But if it were? He wished he'd read more, kept up more. But—

The question rose into full clarity in his thoughts. Was what was going on a mere repetition of the history of the Earth a few hundred thousand years ago? Was there, in that remote era, an atomic war that drove fleeing remnants of a global civilization to the north through a thousand miles of mud, to later migrate southward and build up modern civilization?

His eyes went toward the low lying hills far ahead on the highway. Baffin Island, according to Harry. Maybe he'd uncover something interesting

with his shovel....

Then, abruptly, he remembered something more important to him than prehistoric civilizations. He turned around and studied the faces of the men in the truck with him. One of them looked at him sideways, then with apparent absentmindedness brought his hand up to rub his eyes with the middle finger of his right hand. Einar moved to join him and get acquainted.

"Hi," he said as he sat down on the floor of the truck beside the man. "Wonder how much longer we'll be cooped up in here?"

"'S long as they give us chow regular I don't care," the man said cheerfully.

Einar studied him openly. The man was barrel chested, and with the silkiest jet black hair he had ever seen on anyone. His face was round, with a smooth flawless skin.

He was studying Einar just as frankly.

"I'm George Lord," he said.

"I'm Einar Tharnsen," Einar said. "Why don't you take a look outside? They've got nice orchards started here. In a couple of years they'll be supplying all the fruits the northland will need."

"It doesn't interest me," George Lord said. "I'm just interested in mud."

Einar frowned. George Lord seemed to be laughing at him down underneath, though on the surface he seemed just friendly. He looked away and slowly rubbed his eye with the middle finger of his right hand, then looked back casually. George's deep brown eyes were twinkling.

"I was watching you up front with Gabby," George said.

"Oh," Einar said, getting the hidden meaning. He smiled ruefully. "His name's Drake. He's from Kansas City. Harry Drake. He has a the-

ory that in ten years there will be glaciers down around the fortieth to the fiftieth parallel like there were in the ice age."

"That's right," Harry's voice intruded. Harry squatted down in front of Einar and George. "There'll be a ring of ice in that band, all around the world. South of it will be nothing much but ocean..."

Einar closed his eyes. After a while Harry's voice put him to sleep. When he awakened, the truck was in the jouncing rolling rhythm once more, and moving slowly. He found he was draped against George Lord's side.

With a muttered apology he straightened. George looked at him with the same twinkle in his eyes that he had had before.

"Have a good sleep?" he asked. "We'll be there pretty soon now. The guard up with the driver passed the word back about five minutes ago."

Einar struggled to his feet, gripping the wire mesh covering of the truck to steady himself. Outside the truck was nothing but dark mud and occasional rock outcroppings. Here and there were ridges of round pebbles where the mud had washed away with the melting of the eternal ice.

Ahead and drawing nearer was a high steel mesh fence that stretched to the right and to the left to disappear over nearby hills. The truck was headed toward a large double gate and a quonset hut.

The gates were even now being swung open by two men in military uniform. Two jeeps were parked beside the quonset.

Einar kept his eyes on the soldiers as the truck he was in passed through the gates and headed toward a distant low line of dark bulk which, though the same color as the mud, was obviously the collection of buildings of labor camp number fifty.

A few minutes later the buildings

had resolved themselves into distinct structures. The prison block with its three story buildings and long high wall interrupted with small shacks for the guards along its upper rim. The neat office building set apart from the prison. The mud block mills. The garages and repair shops with road equipment parked, waiting to be repaired or ready to be returned to the job.

The truck was heading for the prison block. The solid metal gates in the wall were pulled aside. Guards were standing in the yard waiting to handle the newcomers.

Einar kept his eyes on the guards as the truck passed through the gates. There were four of them. Would one of them be the guard he was supposed to sock? He found himself swallowing loudly.

"Let's try to stick together, Einar," George Lord said in a voice that wouldn't carry. "We'd be better off as cellmates."

"Okay," Einar said without turning. He was studying the guards, waiting for one of them to give the secret signal.

The gates slid shut. One of the guards unlocked the tailgate of the truck so the prisoners could slide out to the ground. And still none of the guards had rubbed his eyes with the middle finger of his right hand.

"Tough looking guards," George commented.

Einar turned and looked at him. His eyes were still twinkling.

"Yeah," Einar agreed. "Tough."

He got down on hands and knees and slid out of the truck.

"SO LONG, Neal," Marvin said, gripping his hand. "Don't forget, if you have a chance to look for that woman of mine and find her, tell her to write. Give her my P.O. address."

"Sure," Neal said. He smiled, but after Charlie and Frances, he couldn't bring himself to do any kidding. "And I'll write you. I'll tell you everything. If the censor cuts the pages to ribbons it won't be my fault you don't know what's happening."

They released hands. Neal climbed into the cockpit of the jetfighter. Five minutes later from control tower Marvin watched it take off, its booster rockets throwing off mammoth twin trails of smoke that suddenly terminated high in the clear blue sky as they exhausted their charge and were discarded.

In the plane Neal looked down at the bleak monotony of the drab landscape with a feeling of nostalgia. To the left he could see the trail of human ants. Ants whose hill had become flooded, and were moving to a new site for their colony. Almost directly underneath was a caravan of busses plodding along—or were they stopped? There was no way of knowing. The jet with its eight hundred and fifty miles of airspeed left them out of sight behind before they could have travelled a hundred yards.

"Have you seen Chicago?" The pilot asked. "It's still a going concern. New York had to give up and be abandoned. Too many of the skyscrapers were weakened by the big waves coming in off the Atlantic. But Chicago's been building waterproof walls against its big buildings as fast as the water rose."

"Is it much out of the way?" Neal asked.

"Not much."

Below, the black landscape changed. Miles of forest land slipped past. Here and there, becoming rapidly more common, were geometric diagrams spread out—the farmlands of Canada.

And then, suddenly, there was nothing but the lead gray of water underneath. Lake Superior. Only now

it was no longer a lake, but the northernmost reaches of the Mississippi Sea. For an instant there was a brief view of house roofs sticking above the surface, and the twin spires of a church.

"That was the old shoreline," the pilot said.

Neal watched the water. From twelve thousand feet it looked like sheet steel. It was hard for him to imagine that three years ago this would have been the farmlands of Michigan or northern Wisconsin, and even a year ago there were still large sections of dry land.

"There's Milwaukee," the pilot said, nodding toward it.

Neal looked. A few buildings rose from the water, with white breakers washing against them. He studied it until it was far behind, then turned to look ahead, and there were the familiar outlines of Chicago.

"Up until six months ago they could still use the elevated tracks," the pilot explained. "The depth of the water now is forty-seven feet."

He had dipped down and was making a circle around downtown Chicago. Neal could see hundreds of small boats with V-shaped wakes behind them.

"Looks like the motorboat has replaced the automobile," Neal grunted. "But what do they want to hang on for? Chicago can't be of any use any more without its railroads."

"Well," the pilot said. "They have about two million people here yet, and they're trying to become self-sufficient. They have three atom power plants. Half of what used to be offices is now converted to hydroponic gardens." He shook his head sadly. "But if the water comes up much more they'll have to flood the bottom levels or the pressure will push in the walls. They've had to flood a couple of buildings already."

He straightened out toward the southwest and went into a slow climb. Shortly Chicago was left behind. A few minutes later a land mass could be seen far away to the left.

"The Ozarks," the pilot said. "Tough down there. People wouldn't stay away. Flu epidemic now." He was silent for a while. The Ozark Islands moved around to the east. "Look down there," the pilot said.

Neal looked down where he pointed. Two stern paddle ships were there, pointed west.

"They're loaded with people going that way," the pilot said. "They'll take them to the Rockies. On the trip back they'll bring cattle to be butchered."

Abruptly there were clouds underneath. An hour later the plane dipped into them for a precarious landing on a rain drenched airstrip.

A JEEP with a flexible coupling towed the plane to a hangar. The huge hangar doors were sliding shut against the wind-driven rain as the pilot slid back the cowlings so Neal could stand up and stretch.

In a far corner past a partly dismantled passenger liner sporadic blue flashes from behind a partition told of a welder at work, and added an eerie touch to the scene of quiet industry.

Three men in the uniforms of majors were approaching. There were welcoming smiles on their lean faces. Neal watched them, sensing a difference in atmosphere. This was Army. This was Air Force. It was divorced from human misery and rivers of human ants. It was an island of something he hadn't seen or felt during the year and a half he had been in the north.

Eighteen months fell away. Neal stepped out of the cockpit onto the wing and dropped lightly to the

smooth concrete floor, a smile of pleasure lighting his features. He came smartly to attention and saluted. Then the three men were introducing themselves. Majors Mark Andrews, Steve Davis, and Milt Altman.

They were moving toward the side of the vast cavern of industry while somehow they were getting out of him the details of his trip and a rough sketch of conditions *up north*.

"We have a way to go yet, Neal," Major Steve Davis was saying.

"But Chicago!" Major Milt Altman murmured.

And then they were closely jammed in a covered jeep on a concrete highway where huge raindrops bounced against the pavement in the light of the headlights, and a huge truck passed them going the other way, with its retinue of impatient sedans strung out behind.

Hills and wide curves, and a brief dip into a two block long street with a neon lit supermarket and a brief glimpse into bright windows with almost alive ladies in trim housedresses under a large *Grayson* sign.

"The death toll's been terrific," Major Mark Andrews said with impersonal sadness, his face lit up briefly by the *Phillips 66* sign of a busy service station. "Considerably over a million in the Mississippi Valley. China and India are the worst hit of all though. An estimated five hundred million dead from floods and the oceans going inland alone."

Red blinkers ahead in the rain. Slowing down to a crawl past a wrecker pulling a sedan out of the ditch. Wild weaving around slower moving cars up a steeply climbing switchback. Abrupt braking to almost a stop. A slow lurch across a ditch. A brief glimpse of a shack and a soldier in raincoat with a rifle.

Lurching, occasional skidding. And

always the pounding of the rain on the roof.

And then, abruptly, like something in a dream, a flash of lightning driving its jagged course down from above to terminate at the peak of a trim pointed shape rearing from the unseen vagueness of the ground, up and up, until Neal's mind reeled in unbelief.

"God, that was beautiful!" he breathed.

"Like it?" Major Steve Davis murmured smugly. "You've had your first glimpse of—your ship."

"My ship?" Neal echoed, incredulously.

And then the jeep had skidded to a stop just under a roof. Mark Andrews had opened the door and was holding it open for the others. Beyond him was a large window. Inside were tables with men and women in uniform, eating. Faintly the sound of music drifted out to vie with the noise of pelting rain.

"A cup of hot coffee ought to feel good to you after your long trip," Major Milt Altman was saying....

"COME IN!" Neal shut off the water and went to the door of the bathroom, draping a towel around his middle. "Oh, good morning, Major Andrews. I'll be with you in a minute. I'm about to take my second tub bath in a year and a half. Up north there's nothing but showers."

He ducked back into the bathroom. Mark Andrews came in leisurely and leaned against the washbasin.

"I guess all this is quite a treat to you, Neal," he said. "Any contact with the enemy up there? But of course! I'd forgotten how you came to be here. You're credited with shooting down one of them, too. And in one of those unweildy jetcoptors, too! Quite a remarkable feat. Speed it up a bit, General Walters is expect-

ing you at nine, and you'll want some breakfast first."

"He can wait," Neal said, grinning from his small sea of suds confined in gleaming white porcelain contours.

"That's treason," Mark murmured, lighting a cigarette. "By the way, I hope your reflexes are still with you? You're going to need them before long."

"I suppose they are," Neal said. "Personally I can't tell. I don't feel any faster than I ever did."

"You wouldn't," Mark said. "We'll soon find out. First on the agenda this morning is raising you to the rank of Major—which is the equivalent of yardbird in O.X."

"O.X.?" Neal said.

"Operation Extraterrestrial," Mark said.

Neal paused the barest fraction of a second, then went on lathering his shoulders.

"Light me a cigarette, will you Major?" he said.

"THESE WILL be the pictures we took, Major Loomis," General Walters said. "Our Underground Intelligence in Siberia got word out that the attempt was to be made. We readied Palomar, and were quite fortunate."

The lights went out and the screen lit up. Neal watched in fascination. There was a ship. It jumped around as though whoever held the camera were swaying unsteadily.

"Air currents," the General commented. "The moon was low on the horizon. Evidently the Russians tried to time the landing so that we couldn't observe it. If so, they neglected to take into account the fact that refraction of the atmosphere enables us to see the moon for quite some time after it has set mathematically."

The ship was pointed into the

screen at a sharp angle. Soon it began to swing about until it was broadsides. At the same time the edge of the moon appeared in the picture, blinding white, then adjusting to lesser light and more detail.

The ship continued to swing about while it fell rapidly toward the moon. Abruptly a stream of fire shot out from its stern.

"Deceleration," Major Steve Davis commented. "Watch. You're going to have two days of tough drill on this. You can get the idea firsthand from the picture."

Neal watched, trying to imagine himself inside such a ship, dropping down toward the moon or any other body. It was beyond imagining. Rapidly, too rapidly it seemed, the cigar shaped ship rode down on its tail of fire.

"Very delicate instruments are in operation now," General Walters said in a low voice. "The slightest deviation from the downward direction sets up a tangential velocity that must be annihilated before the ship reaches the ground—or it will land with a sideways velocity and topple over, as you will see shortly."

"Those feather touch adjustments are handled by automatic devices," Mark Andrews said. "But even they aren't perfect. Human reflexes and eyesight are faster—in your case."

Neal didn't answer. He was watching the ship on the screen as it dropped closer and closer to the now distinguishable lunar surface. There was a full minute of perfectly clear picture during which the ship could be seen undistorted, even to the hammer and sickle emblem on its glistening side.

There was a final moment during which the fires of its rocket tail were thrown back from the surface to seemingly engulf it. These ceased. The ship emerged to view, toppling over

with unbelievable slowness, while the dwindling gases flowed outward along the lunar surface in wavelets until they dissipated into invisibility.

"You understand, of course, Major Loomis," General Walters said as the lights were turned on, "that this is the country's most guarded secret."

"You can imagine the effect on the morale of the people," Milt Altman said, "if they knew that Russia has already reached the moon."

"Were there men on that ship?" Neal asked.

"Yes," General Walters said. "We won't take time to show you the whole collection of films. You have too much to do during the next three days before—" He stopped, biting his lip. "Major Andrews will take charge of you for the next hour," he added. "His job is to teach your body its proper reflexes under laboratory conditions closely approaching those you will encounter on the ship. That's all here in the projection room." His tone forbade further questioning.

NEAL FELT the muscles of his face sagging downward. He tried to lift his arm as the light on the instrument panel in front of him flashed red. His arm came up slowly. Too slowly.

"Get your elbow against the back of your seat," the voice of Mark Andrews came through a small square grill on the panel. "That way you aren't fighting the drag against your whole arm." Neal obeyed and found it much better. "Now let's try it over."

The red light blinked out. Neal dropped his arm and rested. The red light blinked on again. This time he was able to reach up and press the button that shut it off.

"Good work!" Mark said. "That topped the best mark set so far. We'll try it again, then have some varia-

tions and see how you'll do...."

"ANALYZE specific sensations,"

Steve Davis said. "For example, I can tell three gees by a sensation from my left earlobe. At three and a half, one of my teeth aches a little. Just sit and watch the dial and connect your sensations to the acceleration. By day after tomorrow you have to be able to tell to within a tenth of a gee what your acceleration is—or we don't dare entrust the ship to you. We know what it takes to handle it, and you've got to have it before you lift her off the ground."

"I'm a little tired," Neal said. "Let's take a breather."

"Uh uh!" Steve said. "You're going to be tireder than that all the time upstairs. Get used to it. It's part of your training..."

"LIE DOWN here. Quickly!"

The doctor pressed the stethoscope against Neal's chest. He listened for a moment, finally nodding his head and taking the stethoscope away.

"Good," he said. "Unbelievably good. Now the fatigue test and we're through for the day."

Neal rested his hand, palm upward, in the clamp. One finger fitted through a wire hoop. The doctor fastened the cover down.

"Start!" he said.

Neal lifted his one free finger against the resistance of a spring and let it drop. Raised it and let it drop....

"THIS IS the schematic diagram of the ship," Milt Altman

said. "You don't get much from it except the general arrangement of things. There are four main parts to notice right now. The rocket, as you can see, is something really out of this world. I don't think the Russians

Have it in theirs. Atomic. We wanted a neutron beam but had to be content with protons. The beam is really about eight percent deuterons. The fuel is forty percent pure plutonium in the form of number twelve gauge wire. It's fed through the barium oxide reflector block which is really a long solid rod two feet thick, encased in a laminated steel tube, and screw-fed along the tube as it's eaten away by the bombardment of exploding atoms against it.

"And here's the gyro setup at the center of gravity..."

"CONGRATULATIONS, Major Loomis," General Walters said. "The reports of your progress are everything we had hoped for. Ah, we're having a little party for you after dinner. Your orderly will make sure you are dressed properly."

"I wish you hadn't, sir," Neal said. "I'm exhausted."

"Nonsense! By the time you've showered and eaten and put on full dress uniform you'll feel differently. Major Andrews will call for you at eight-thirty."

"Yes, sir," Neal said. He saluted, turned smartly, and went to the door...

"Don't feel so good?" Mark Andrews said sympathetically. "It's nerves. I know." He went over to a blonde wood cabinet and opened it, revealing an array of glasses, bottles, and the door of a very small refrigerator. He looked slyly up at Neal and smiled at the expression of surprise he saw there. "Didn't know you had a liquor cabinet in your quarters, did you? As a matter of fact it isn't standard equipment, but we wanted you to have everything. We're pinning a lot of hope on you."

IT WAS a large hall, fully fifty feet across either way. Folding chairs

were stacked up in six foot high tiers along two walls. On the far side, on a raised platform, was an orchestra. Neal's eyebrows shot up as he recognized Joel Cartier, the most famous of bandleaders, wielding the baton.

"They flew him all the way from Appomattox for tonight's party," Mark said at Neal's shoulder.

General Walters was coming toward him, a broad smile wrinkling his features into a mask of aged joviality.

"Was I right?" he asked. "You look great. I can't understand why you weren't made a major long ago. You look the part."

"Thank you, sir," Neal said. "I think you were right. I'm sure I won't regret a last—ah—fling."

"Fling?" General Walters threw back his silver gray head and laughed. "Yes," he said, sobering suddenly. "Tonight is yours. Do what you wish. Tomorrow you go into training seriously. Two days of that, and then—the cold gray dawn."

Neal looked at Mark, who lifted his eyebrows meaningfully. The General had had a little too much to drink.

"Well," General Walters said, coming out of the reverie he had momentarily fallen into, "have a good time. I must hurry back to my niece."

"Yes, Uncle?"

The three men turned. Neal caught his breath.

"Aren't you going to introduce me, Uncle Fred?" the girl asked, looking into Neal's eyes.

"Why—why—of course. Naturally, my dear child. Major Loomis—my niece, Dorothy Walters."

"How do you do?" she said, but the words were obviously just for her uncle's benefit. She continued to look into Neal's eyes. And somehow Major Mark Andrews and General Walters had faded away, and the

band was playing...

"You dance very nicely, Major," Dorothy said.

"It must be you, Dorothy," Neal said. "I haven't danced for—" He stopped as the wail of air raid sirens rose above the sound of the orchestra. "Which way is the bomb shelter?"

"Oh, we pay no attention to raids except to make sure of blackout precautions," Dorothy said. "Our fighter protection here is quite perfect—and if it isn't, we'll never know it. They've been trying to get O.X. since the very beginning."

Neal glanced nervously at the ceiling.

"Should we get a drink, Neal?" Dorothy suggested...

"UNCLE SAYS we can't take a jeep," Dorothy said as she slipped onto the vacant stool beside Neal. "The all clear hasn't sounded. They still have an atom bomber trying to get through to here with literally thousands of fighter support planes escorting it. This's the biggest air offensive they've thrown out in two weeks. Your glass is empty, Neal. Another?"

"No," Neal said. "I want to talk to you. Where can we go?"

"We could go to my apartment," Dorothy said gravely, "but we couldn't get past the desk. Uncle said this morning—or was it yesterday morning? Well, anyway, he said that they'd installed a liquor cabinet in your apartment. But why can't we talk here? Nobody'll listen anyway. They're all having too much fun by themselves."

"What's wrong with my apartment?" Neal asked. "But I guess you're right. Bartender!" He set his glass on the bar.

"It would serve Uncle right," Dorothy said.

Neal looked at her, puzzled. "What would?" he asked vaguely.

"If I went with you to your apartment," Dorothy said. "In fact, I've a good notion to. We could have just sat in the jeep without going anywhere..."

"Let's go," Neal said. "Though I don't think you're going to like what we're going to talk about."

He stood up. Dorothy linked her arm in his.

"Let's go," she whispered excitedly....

"I guess we could have talked back there," Neal said, fumbling inside the door for the light switch.

"This'll be much better," Dorothy said. "Here, let me find it." She reached past him and found the switch.

"God!" Neal muttered when they were inside. "I must have had an unbelievable amount to drink." He rubbed his eyes with his fingers, then took them away and looked at Dorothy who stood a scant foot away looking up at him, smiling.

"Dorothy," he said. "What I wanted to say was—I'm married. I don't know where my wife is—or even if she's alive. Haven't known for almost a year."

"Is that all?" Dorothy said softly.

"All?" Neal echoed. "Isn't that enough? I'm married. But damn it—" He stopped, lifting his hand to his eyes again.

"But—you love *me*?" Dorothy asked.

"I—I don't know," Neal groaned. "When I first saw you tonight something happened. Maybe it's just that in three days I'm going up in that spaceship. Maybe that's all it is."

"Suppose you weren't married?" Dorothy asked, placing her hands on his shoulders.

"If I weren't married maybe it'd be different," Neal groaned. "I wish

I could see Annette before I go up."

He brushed Dorothy's hands away and turned, stumbling over to the davenport and slumping down, burying his face in his hands.

"Neal," Dorothy said. "Neal! Listen to me. You aren't married." She walked over to him and shook him. "Neal! Do you hear me? You aren't married!"

"Huh?" he said suddenly, the meaning of her words sinking in. "What do you mean?"

She spoke rapidly. "They wanted to surprise you. They wanted to have Annette here with you these last three days before you go up. They turned the entire Intelligence Service into the job of locating her. They found her. She's dead. She died on Ozark Island almost a year ago in an air raid."

"I don't believe it," Neal said dully, lowering his hands and looking up at her.

"It's true, Neal," Dorothy said. "They didn't dare tell you. They thought—" She stopped, a horrified light coming into her eyes. "Oh, God!" she moaned. "What have I done?"

"Get out," Neal said.

"I love you, Neal," Dorothy said, her features cramping.

"Get out."

He watched her as she turned slowly and went to the door. She looked back at him appealingly. His expression didn't change. She opened the door and went out. It closed slowly behind her.

He looked at the closed door for several minutes. His features slowly lost their expression of grief, smoothing out. Finally he got to his feet and went to the bathroom and turned the water into the tub.

Then he looked at his reflection in the mirror—and smiled.

"Stone sober!" he said to his re-

flection softly, mockingly.

"SHUT UP, Gabby," George Lord said tiredly.

"I wish you'd stop calling me that," Harry Drake said in an injured tone. "I don't talk any more than anybody else—or if I do it's because I think of more to say."

"I never knew anybody that could think of less to say and take longer to say it," George said, grinning. "Pass me the salt—and don't start telling me all you know about salt."

"Reach for it," Harry said. He turned his attention to Einar. "What do you think, Einar? Were those human bones your shovel uncovered yesterday? They looked it to me."

"I don't think so," Einar said evasively. "In the first place they're too heavy."

"Petrified," Harry said. "I've seen petrified ivory in a museum. Handled it. It's the same exactly. And if they've lasted a million years under the ice they'd have to be petrified."

"Okay," Einar said, "but they could be the bones of a bear. We didn't find a skull. Anyway, it doesn't make any difference."

"The heck it doesn't," Harry said. "If it was human it bears out what I was saying on the way up here—that the human race lived up here once before the ice age. That means there'll be another ice age, and everybody'd better come north now."

"Let's go, Einar," George said, lifting himself up and stepping over the bench into the aisle between the long tables. He gave Einar a sharp look.

"Sure," Einar said, gulping the last of his black coffee and rising.

"Just a minute and I'll go too," Harry said. He started in on the last of his fried eggs and potatoes, saw that George and Einar weren't waiting for him, and abandoned his breakfast to scurry after them.

"He'll have a knife in his ribs some night," George growled. Then, hastily, "It's pretty soon now. I've got to talk to you—today."

"If it was human bones it'll be a nice thing for you, Einar," Harry said as he caught up with them. "Maybe they'll let you off with your minimum sentence in spite of your socking that guard. They should."

"Gaaa..." George said. He glared at Harry and stalked away.

"It's coming pretty quick now," Einar said out of the corner of his mouth.

"What's come over him?" Harry said, staring after George, then without moving his lips, "What do you want me to do?"

"He gets tired of your talking all the time," Einar said. "As a matter of fact, I get a little tired of it myself." Then, out of the corner of his mouth as Harry looked at him reproachfully, "Stay out of the way until noon so I can get the dope."

"Well, if that's the way you feel..." Harry said. He turned around and scurried back toward his place at the table. "Hey! Who swiped the rest of my breakfast?"

Einar hurried after George.

"How'd you get rid of the pest?" George asked in amazement.

"I told him I was getting a little tired of him myself," Einar grinned. "It hurt his feelings."

"Oh, that's a shame," George said. He lowered his voice. "We're all set for the day after tomorrow."

"How do you know?" Einar asked quickly. "What I mean is, why didn't they set it far enough ahead so that we could be sure we'd all act at the same time. This would flop if we got control here and all the other labor camps thought it was to be the day after."

"The warden's radio op is one of us," George said. "That was the

hardest job of all, getting our men in as radio operators at all the camps. He got the code yesterday and passed it to the guards that are with us."

"That makes me feel better," Einar said quickly. "That's one thing I was worried about. I was afraid if something leaked out, the radio op would be able to call for the army."

"Not a chance," George said. "Not only that, he's got a time bomb planted in one of the power tubes. If the radio's turned on and operated by anyone that doesn't know about it and how to keep it from blowing up—poof! No radio."

"Then everything's set," Einar said. "Day after tomorrow morning eight of us leave the breakfast table early and instead of going straight out to the jeeps we turn and run to the arsenal. It'll be open. We have a couple of minutes to get guns, then I fire a shot in the air. That's the signal for the riot back in the mess hall."

"That's enough," George said. "We both know how it goes from there. One of our guards shoots the warden. The other has gone from the arsenal as soon as we showed up, and will see that the guards in the block are delayed until we can all get armed and herd the other prisoners out into the yard. Pass the word along today and tomorrow."

EINAR brought the giant shovel over the waiting truck and released the trip that sent its load dropping, expertly placed. He swung the shovel around and brought up another scoop. His eyes searched the crumbling embankment for signs of anything solid too long and narrow to be stone. There was nothing but the black, claylike mud, heavy and totally devoid of vegetable matter except for the microscopic flecks of carbon that might have been coal at one time before it was picked up and

ground to an almost atomic dust by the grinding pressure of ice.

He brought the shovel to a stop and dumped the second load, filling the truck. As he swung the shovel away he looked idly at the number on the truck. Twenty-three. Harry Drake's.

The truck started up, went a few feet, and stopped. It started up again after a moment, went another few feet, and stopped again.

Its door opened and Harry dropped to the ground. The prison guard came running up. Einar saw Harry point toward the motor hood and shrug.

Another truck stopped in place for loading. Einar started to load it while keeping an eye on Harry and the guard. The guard talked to Harry a moment, then climbed into the truck. After a moment he got out and went over to the driver of the truck being loaded and spoke to him.

Harry wandered over and hopped aboard the shovel.

"Engine trouble?" Einar said, smiling.

"Yeah," Harry said. "God! I thought I'd never get that wire twisted in two. It'll take the mechanic a few minutes to find the break, but not long. Better not waste time."

"It's coming day after tomorrow right after breakfast," Einar said. "But we've got something we didn't expect. The radio operator is in on it."

"The radio operator?" Harry said, suddenly very serious. "How are we going to get this to GHQ? Are you sure? Those radio operators are screened pretty closely."

"George said every radio man in the labor camp setup is in on it—that they made that one of their prime objectives."

"We don't know for sure who to trust then," Harry said. "Even the warden himself may be in on it."

"There's orders to shoot the warden," Einar said.

"Then I'll have to try to get through to him," Harry said. "I can demand my rights and insist on seeing him. It might work."

"Let me try it," Einar suggested. "When I socked that guard he saw me to get my version of it."

"No," Harry said. "Your job is to play along with them until it's over. That's orders. I'll get to the warden and convince him. Then we'll take over the radio and get GHQ."

Einar shook his head. "The radio has a hidden bomb in it," he said. "Only the operator knows where. You'll have to get away in a truck."

"Leave it to me," Harry said. "I'll—" He began talking in a louder voice. "They'll find more bones around here. My guess is that this hill's an old prehistoric cemetery and there's lots of bones..."

EINAR SAT down, looked across the table at George, then questioningly at the empty place where Harry usually sat. When he looked up again George was grinning wolfishly.

"Pass the salt, Einar," he said. "I'm an impatient man, sometimes."

Einar picked up the saltshaker and held it out. George's hand was sure and steady as he wrapped his fingers around it. Einar looked up into his eyes and a chill shot through him as he realized what the man was trying to convey to him.

George had killed Harry! Had it been because he knew what Harry really was? Einar studied him through half-closed eyes. A suspicion that had lain dormant at the back of his mind emerged. There had always been a certain *something* about George that was out of place. It came to him now what it was. A well concealed arrogance. George Lord was a Russian

spy. The thought crystallized in Einar's mind, and a thousand little traits rose from memory to make it a certainty.

But that was neither here nor there so far as the outcome of things went. What mattered was that Harry was to have warned the warden, and Harry was dead.

"Knife?" Einar asked, holding out his hand.

"Huh?" George said, startled. He did a double take. Picking up his knife and handing it across the table to Einar he said, "Yes."

Einar forced himself to eat and be casual while his mind searched frantically for some answer. GHQ had allowed him to follow his own plans in this. He had staged the fight and been arrested so that no one could possibly suspect him of being a secret operative. Harry had been assigned to accompany him to camp fifty when it was certain there was something definite being plotted.

Now everything was falling into place like the parts of a jigsaw puzzle. George Lord was the key man, the Soviet spy in charge. He had come to this advance labor camp so that it could serve as his base of operations after the revolution succeeded, and while the revolutionaries were still battling the small land army farmed out up here to help the refugees get settled.

It could succeed—if GHQ didn't know when the blow would fall. Five thousand Russian jet fighters and troop transports were ready for the thrust.

Einar forced the last bite of fried egg down and stood up. George stood up too. They met at the end of the table and walked casually toward the exit.

"I'd have done it tomorrow anyway," George muttered. "But I decided not to wait. I'll be too busy to-

morrow to worry about that."

Einar shrugged. "It's fine by me," he said out of the corner of his mouth. "It could ruin things if they put us all in our cells while they investigate the murder though."

"They won't," George said. "They want the mud bricks too much."

He was right. Einar knew that. They had to have them. They were sentencing anyone able to work for the mildest of offenses so that they could get workers enough to turn out the millions of blocks it would take to convert this vast wasteland into the beginnings of a liveable country. It avoided the technicalities of setting up a vast civilian army of workers, and what was more important, took a crippling load off the already bankrupt Government treasury. Kept the vast population moving to the north from building up a false wealth in worthless dollar savings.

"Everybody knows?" George said.

"I passed it to the truckdrivers as they got their loads yesterday," Einar said.

"Good," George said.

He grinned knowingly at Einar and moved off, hands in pockets, whistling an off key melody.

EINAR GLANCED at the jeep speeding across the ground toward him. A guard was in it. One of the two in on the revolt plot. His attention was forced back to the delicate task of dropping the shovel just right to scoop into the embankment and bring up a full load. When he had swung the loaded shovel around to the waiting truck he took another quick glance. The jeep had stopped. The guard was coming toward him.

He tripped the release that dropped the two yards of mud neatly into the truck.

"Hey! Einar!" the guard shouted above the noise of the motor. "You're

wanted at the warden's office!"

Einar felt a surge of new hope. This would be a chance to let the warden know what was going to happen. But immediately his heart dropped. Why would the warden be sending for him? There was but one reason. Harry's body had been found. They were bringing him in to question him. Or were they going to charge him with the murder? That would be a touch typical of George Lord. More than once Einar had felt that George knew he was a GHQ operative, and that that was the source of the amusement that lay deep in his eyes when he looked at him.

"Right," he answered.

He swung his shovel around and brought it to rest ready for the next scoop and shut off the motor. The palms of his hands were moist.

He jumped down out of the cab and got into the jeep beside the guard.

"What's it about?" he asked carelessly. "Harry's murder?"

"I don't know," the guard said, starting the jeep with a violent lurch. "Damn this clutch. Sticks. All I know is they handed me orders to bring you to the administration office. Whatever it is you don't have to worry. Even if they locked you up for murder they wouldn't shoot you today—and tomorrow you'd be out again after it's over. So don't worry."

"Yeah, guess you're right," Einar said, slumping down.

The guard stopped the jeep at the administration building.

"I'll go in with you," he said. "That way I can maybe find out—in case you don't get to come out again."

Einar glanced around curiously as they entered the building. They were in a reception room. The floor was of asphalt tile, a bright mottled yellow. Two men in the garb of pris-

oners were at work at the two desks in the room.

"Sit down and wait, Mr. Tharnsen," one of them said, looking up. He turned his eyes to the guard. "That will be all, Mr. Overman."

The guard hesitated, looked at Einar in indecision, then turned and left. The trusty was dialing on the phone. As the door closed behind the guard the trusty said, "Right through that door, Mr. Tharnsen."

Einar went to the door and opened it. He saw the warden sitting behind his desk and a soldier. An officer, tall and lanky. Both men were smiling broadly at him.

"Einar!" The familiar voice exploded in his ear. He turned in the direction of the voice. Familiar features, the large braid of straw colored hair curved into a nest.

"Hilda!" he said, a mixture of gladness and alarm in his voice.

His wife was reaching toward him with her arms, wanting to rush to him, afraid to display affection in public. He knew what went on inside her.

"You're free, Einar!" she was saying. "Mr. Swank here helped me get you free. We have a special pardon from the President of the United States himself!"

She was standing there, so erect, so proud, so happy. A pain shot through Einar's heart.

For an instant he felt regret that he had ever been born. This was a moment when decisions had to be made and acted upon. He didn't feel capable of making them. Should he warn the warden now? Hilda was no actress. They wouldn't get away alive. Should he say nothing and let them take him away, and after they were safely away start things moving?

"You're free to leave at once," the warden said. He was smiling—and Einar couldn't condemn him to his death in the revolt tomorrow.

"Okay," Einar said, suddenly making up his mind. "But—could I leave a note for one of my friends?"

"Of course, Einar," the warden said. "I'll see that it's delivered to him." He opened a drawer and took out paper and pencil and held them out.

Einar smiled at his wife. While they watched him he sat down and hastily wrote out the details of the plan for revolt, giving names. He folded the paper and wrote on the outside, *For you, warden.*

Standing up, he handed the folded note to the warden. The warden took it and glanced at the supposed name on the outside in idle curiosity. He frowned suddenly and looked sharply at Einar.

Einar shook his head imperceptibly, holding his breath, hoping the warden was shrewd enough not to do the wrong thing.

The warden looked confused. Then his face cleared. He smiled. "I'll see that *he* reads it, Einar," he said. "However—" He looked at him quizzically. "I didn't know you considered him a friend of yours."

"Let's go," Marvin Swank said.

Einar nodded and put his arm around Hilda and started toward the door. His palms were moist again. So much depending on so little. Perhaps the entire outcome of World War III concentrated on what happened in the next ten minutes. The warden would have to fight for his life, rallying the loyal guards and keeping possession of the arsenal. But that was a side issue.

But—perhaps—the fate of the civilized world depended on whether he, Einar, could reach the gates of the labor camp without being shot....

"**M**ORNING, Mark," Major Steve Davis said. "Sit down and join us."

Major Mark Andrews smiled at him and Major Milt Altman and sat down. "Just coffee, please," he said to the waitress.

Milt Altman lifted his arm and frowned at his wristwatch. "Just fifty-seven minutes more," he said. "Major Loomis will be boarding his ship in another twelve minutes."

"I wish I'd had what it takes," Mark said regretfully.

"Don't we all," Steve murmured. "By the way, what's come over Major Loomis? All day yesterday he had the strangest expression on his face."

"I noticed it too," Mark said.

"So did I," Milt said. "It reminded me of the smile on a nut I saw in Los Angeles once. A guy who claimed he was God. Major Loomis had that same look—a sort of quiet smile and—"

"It wasn't quite like that," Mark interrupted. "I saw a man who looked exactly like Neal did all day yesterday. It was when I was in Africa with the Europe atom bomb detail. He was a fighter pilot and he'd had a dream that it was his day to get it. If he'd told anyone he'd have been sent back home, but he just wrote a note that was found later in his effects."

"I think you're both wrong," Steve said. "Neal knows his stuff. He's the first American to leave Earth. It's a job any one of us would give his eye teeth for. If I had made the grade and it was the day before I was to go up I think I'd have the same smile—"

"It wouldn't be the same," Mark said. He glanced nervously at his watch. "Forty-five minutes. He's riding the elevator up right now and getting into the ship. God, I'm nervous! If something goes wrong and he crashes..."

Five sharp piercing shrieks sounded in rapid succession. There was a

pause, then they were repeated.

"That's clear-the-field," Mark said unnecessarily. "No turning back now. He's in there, alone, in—" He looked at his watch. "—thirty-eight minutes..."

"Hey," Milt said softly. "Look who just came in! Dorothy!" He waved his hand at her and motioned for her to come over and join them. In an undertone he said, "I saw her and Neal leave the party together. Wonder if they have a crush on each other."

"Lucky dog," Mark mumbled. "He'll have all the breaks from now on. What's eating Dorothy? She looks like—" She was too close for him to finish his remark.

"Good morning, Dorothy," Milt said, getting up and pulling back the fourth chair for her. "You're looking pretty upset. We're all nervous, but—he'll come back."

"Good morning," Dorothy said. She sat down and placed her elbows on the table, twisting a small lace kerchief in a distracted way.

"Some coffee?" Milt suggested.

"What?" She looked up at him as though she had forgotten he was there. "No. No, thanks."

She bit her lip and looked out the window at the incredibly tall, incredibly graceful projectile a mile away pointing upward at the sky as though anxious already to be free of its Earth bonds.

"Twenty-four minutes," Mark announced—and suddenly they all realized they had been staring at the spaceship.

"Oh, dear God," Dorothy exploded suddenly. "They can't let him go up. They can't. They've got to stop him." Her lip trembled. She sucked it between her teeth, then brought the twisted remains of the kerchief to her eyes.

"Here, now," Milt soothed. "It

isn't that bad. The Ruskies have reached the moon. The ship is as perfect as man can make it."

"Oh, I know. I know," Dorothy said. "But he shouldn't go up. He's in no shape for it. He might do something."

"You're just imagining things," Milt said.

"What do you mean?" Mark asked, looking at her sharply.

"Why—why nothing!" Dorothy said.

"Yes, you do," Mark said, gripping her wrist. "Come on! Out with it!"

"You're hurting me," Dorothy said, trying desperately to smile. Mark stared into her eyes and slowly relaxed his grip.

"One minute!" Steve said tensely.

They turned to the window, everything else forgotten, their eyes on the ship, waiting for the first blast of flame....

"HOW DO you feel, Neal?" It was General Walters' voice coming from the gray grill of the radio.

"All right, sir," Neal said calmly.

He was sitting in a chair with a form fitting back of sponge rubber that cradled him against the terrific acceleration that would grip him shortly. In front of him within easy reach were all the controls. Above them was a concave dome that seemed to be transparent, bringing a clear view of the rocket field and the buildings a mile away.

He reached out and pushed in the second of four pushbuttons in a small rectangle of the control panel. Instantly the view of the field and the buildings was replaced by one of drifting clouds and a star studded sky. He knew what he was seeing was exactly what he would have seen if the screen were actually a transparent dome. But it was in reality a

video screen connected with electronic camera eyes fixed into the outer shell of the ship.

"I have a last minute surprise for you, Neal," the General's voice sounded. "Special line to Appomattox. The President wants to wish you luck personally."

"Put him on," Neal said. And the second hand passed the bottom, moving toward the beginning of its last round.

"Good morning, Major Loomis," the President's voice erupted from the speaker.

"Good morning, sir," Neal said.

"I want to wish you God speed, Neal," the President said, his voice suddenly personal in tone. "When you get back—the highest honors this Government can give will be yours..."

His voice was drowned out by the wail of the air raid siren. At first Neal thought it must have originated at the Capitol at Appomattox. Then he realized General Walters' mike must still be on.

The sky as seen in the video dome was suddenly alive with fighter planes. Soviet jets. Target-seeking rockets sliced upwards, leaving trails of still fiery gas.

Neal glanced at the instrument panel clock. Four seconds to zero. His eyes went back to the screen.

A new type of ship shot into view. A giant thing, less than three thousand feet distant. From the side a streak of flame appeared, at its head a flash of pointed silver that drove straight into the heart of the ship. In the next instant its side opened up, seeming to melt and evaporate, rather than explode. Men and machines were pouring from the wound. The atomic fire trail of the missile seemed some lethal ray, rather than matter, in that instant.

Then the scene of destruction was

brushed aside by an unseen hand, and incredible weight was pressing Neal back. His eyes jerked to the clock. Zero hour had passed. The ship was lifting...

There was a curtain of intense black hanging deep within the concave video dome of the compartment. A very old and somewhat dusty curtain with countless holes through which light seeped. It was the universe.

Neal kept his eyes on it as he reached for the controls. The stick was exactly the same as the ones in the planes he had used.

He pushed forward against it, feeling it resist. In his mind's eye he could visualize the gear motors slowly whirring in the gyro compartment, the long ship slowly changing direction, while the tail of atomic fire continued to shoot straight back without abatement.

Something rose into view—or was it the black curtain being lifted? It was the Earth, the curved horizon.

Neal leaned forward to look down. He had seen this before in pictures taken from experimental rockets. But it hadn't been quite the same. Those pictures had shown a recognizable North America. It was the North American continent below, but no longer recognizable. It looked more like a huge discolored tooth with two roots extending down from a corroded and blackened shell, one blunt, the other long and jagged.

The Pacific stretched out ahead like the greasy surface of a steel ball. To the north the pulled tooth was joined insecurely to another mass of black. Siberia.

There were little flecks of bright silver down there. They seemed stationary, but they were above the scattered clouds. Planes. While he watched, their illusion of motionlessness vanished. His mind made the ad-

justment to distance and size. There were thousands of them.

"General Walters!" he said. "There's a mass raid starting from Alaska. Thousands of planes." He waited a moment. There was no answer. "General Walters!" he said.

Frantically he twisted the dial of the receiver. Suddenly a station came in loud and clear.

"your li'l ol' disk jockey, Tubby O'Hara, broadcasting from KQTZ, the Kaintucky station that moved to the hills of Tennessee when the li'l ol' Gulf of Mexico welcomed the aintire Southland to its bosom. We'll have the news in a few minutes now, but I think we have time for a tune first—"

Angrily Neal twisted the dial off station. He looked down at the flecks of silver. They were piling up along a line in the Yukon. Here and there they were changing from silver to lengthening trails of dark etched into the white background of clouds.

In his mind Neal was translating the flecks of silver into planes and battle formations and movements. There were troop transports. Too many to count. Some of them had broken beyond the line of Western defense in the north with their fighters fluttering around them. More were coming from Siberia.

This was an all-out. The thing the airforce had fondly hoped for was no longer possible.

Neal searched the ground to the south. There were flecks of silver there. He translated them into planes going at definite speeds and covering distances. They would get there in time to stop some of the Soviet airfleet. But—

"The last hope for us," he groaned.

He twisted to watch the drama of death and lost hope as the turning globe drew it over the brink of the

eastern horizon.

THREE HUNDRED miles below, the looming rim of what the hungry Pacific had left of China crept over the horizon, moving toward Neal and taking form. A shoreline and sloping hills.

He watched it pass below with the ponderous dignity of vast things moving slowly. Then, abruptly, he turned away from it.

He pulled back on the stick. The earth dropped in the video dome as the gyros shifted the nose of the ship upward.

The dusty black shroud of space with its scattered scintillating jewels was an abyss into which he was plunging.

He touched the plutonium feed control and smiled his satisfaction as he felt added acceleration press against him.

After a while he pressed each of the four pushbuttons that selected the direction of view in the video dome and saw in turn the sun with its flaming corona, the earth which was now a colossal globe with alien geography, and the moon, travelling in its unchangeable path to the point of rendezvous, and once again the black canopy of diamond dust whose pattern was his signpost in space.

And finally the time came to touch the gyro stick once more. There was no slightest change in the force of acceleration flowing through him, yet the universe passed across the video dome in swift departure until the earth, a globe twice the size of the moon as seen in earth's skies, hung suspended in the screen, stationary.

But to Neal it was no longer the world he had left, nor quite yet the globe it would be soon. It was an abstract direction of reference in the guidance of the ship.

Now he touched the number four

pushbutton. The earth was replaced by a faint ball of fire which was the residue of the rocket tail not eliminated from the video composite, and by the now familiar section of space toward which he was headed. And, to one side, the moon, now an unreal and magnified globe, seemingly unmoving, yet moving as fast as he toward the meeting place in space.

There was no room in thought for any other thing. Ptolemaeus, a crater ninety miles across, was to be the destination. It was clearly visible. And already in Neal's eyes it had become the landing field, while the spaceship had become a jetcopter that must be dropped on a stationary dime with a feather touch.

Time stood still while all else moved. Gyro motors in high gear for instant response. Plutonium feed dual controls, one normal and one micro. Video eyes alternating magnification for constant checking.

And then—it was done. There was the jarring thud, and the moment while Neal held his breath and the destiny of mankind hung in the balance. And atomic fire rebounded from the moon's surface to blot out all things, and wash away as he cut the plutonium feed.

He jabbed at the number two video button. Instantly the earth appeared. It was stationary in the screen, revolving with almost imperceptible slowness. It would remain there in that same spot until Neal took off again for home.

Now he reached into the right hand

section of the control panel and pressed a button. A moment later a green dot of light appeared inside it—the signal that the pointed nose of the ship had retracted, to be replaced by the launching tube for the atomic missiles that filled the vast hold of the ship, tier on tier.

Neal looked up into the screen at the globe suspended there, and at the discolored tooth with two roots that was North America.

A quiet smile rested on his lips as he turned on the radio.

"Major Loomis reporting," he said quietly. "Objective reached and am centered on target."

Five seconds passed. Then—

"Thank God, Neal!" It was General Walters. "And none too soon. We're almost lost. Russia threw an all-out at us. An old side kick of yours, Marvin Swank, and a GHQ agent, Einar Tharnsen, gave us warning in time to blunt the thrust, but—fire. Fire at will until they give up!"

The quiet smile, holding within it the culmination of the hope of all freedom loving peoples, remained on Neal's lips as he made adjustments.

In his mind's eye was the memory of the rocket in number one place for launching. And in his thoughts as he jabbed the firing pin a voice whispered, "It's about time!"

And in neat white letters on the side of the silver shape that darted Earthward from the nose of the ship was one word.

Moscow.

THE END

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The CHILDREN

By Chester S. Geier

Who were these strange children on Hindemuth IV? And more important, could a man resist the desire to join them? . . .

IT WAS Sprague who first saw the figures moving through the vast alien forest beneath the cruising jeet. He overcame the massive inertia of his surprise; he pointed and spoke with a quiet intensity.

"Look, Ben! Down there!"

Dagget's ice-blue eyes flared as he peered earthward through the glass-clear transalloy walls of the cabin. In the forest below a score or more of tiny shapes were visible as they crossed open spaces in the network of trees, running to follow the jeet's flight.

"People!" Dagget burst out, awe sharpening the bass timbre of his voice. "And, Phil. . . they look *human!*"

The awe in Dagget's tone found an echo in Sprague's long face. People . . . *human people!* Was it possible? How many habitable planets had been discovered by the interstellar rovers of Earth? Sprague could not begin to remember. But he could remember that few of those planets had been inhabited by intelligent beings, that fewer still had been inhabited by beings even remotely human in appearance.



Here on Hindemuth IV seemed to be a human, or a near human, race.

The running figures became lost in distance as the jeet soared on through the clear blue-green sky. Sprague turned back to the controls and swung the craft around to retrace its former course at a slower speed. He sent a questioning glance at Dagget.

"Is the camera getting this?"

Dagget briefly inspected one of a number of instruments in a framework behind him. "Still running," he reported. Then, taking a pair of binoculars from a compartment, he fell to

an intent scrutiny of the changing terrain below.

"I can see them again," he announced presently. He released a whispered exclamation. "What in space—! Phil...they're kids!"

Sprague stared at the other for a moment, disbelieving; then he took the binoculars and peered downward in turn.

Dagget's eyes had not been playing tricks. Magnified now, the moving shapes were indeed those of children; slim brown children, long-haired and unclothed, gesturing up at the jeet in evident excitement. Amid the shadowed green forest setting they had an unreal, elfin appearance—almost like creatures out of fantasy.

"Put the ship down, Phil," Dagget said abruptly. "We've got to give this a first-hand scanning. It...why, it's almost the biggest thing that's happened since interstellar travel!"

Sprague shook his head slowly. "This is an alien planet, Ben, and those kids down there are members of an alien race. We can't take chances until we know much more than we do right now. There must be adults around somewhere; we don't know how they'll react to us."

"Guess you're on course there." Dagget's lips took on a sullen curve that denied his spoken agreement.

"The camera is getting all this," Sprague went on. "We'll check the film when we get back to the ship and see what it shows. We might find something we missed."

"We didn't find the Colonial Administration ship," Dagget returned. "If it's here at all." His resentment was now obvious.

Sprague was aware of it, but for the moment he occupied himself with swinging the jeet around again. Then he said mildly, "The Colonial Administration ship might be here for all

you know, Ben."

THE OTHER'S head swung around in growing ill-temper. "You know blasted well how I feel about this little junket of yours. We've already spent a year in galactic space, searching for the Colonial ship. We covered the area to which we were assigned; headquarters didn't tell us to do any more than that. But instead of hypering back to the System, you take a jump out here, to Hindemuth IV, a planet right in the middle of nowhere."

Sprague lifted his spare shoulders. "I had the idea that the ship might be here, if it wasn't anywhere else."

"Idea!" Dagget snorted. "I call it an attack of space fits."

"Up to a certain limit you're welcome to your own opinions," Sprague answered calmly. He made a slight correction in the jeet's course and went on, "Special Services Division has a habit of expecting considerably more from its members than is stated in orders. It's an official if unwritten rule. You should have thought of that when you volunteered, Ben."

"I was thinking of the nice long vacations between jobs," Dagget grunted. "But now I'm beginning to see I made a mistake. I should have stayed with the Space Force."

"But you didn't," Sprague pointed out. "That's partly the reason why you're here right now, instead of in some pleasure dive back in the System, swilling aphrolac with a bunch of dizzy females."

"Partly?" Dagget questioned. His freckled, muscular features were sardonic; a long-smoldering hostility showed in the hard thrust of his eyes.

"Partly," Sprague said. "The other part is that I happened to remember Special Service agents are often required to use brains in carrying out orders. So when we were briefed on

our search for the missing Colonial ship, I decided to do a little checking in Galactic Department archives. I looked up the reports and records of the ship's commander—and came across the name of the sun in this planetary system: Hindemuth. The commander had discovered and named it a number of years back, while running a Mapping Bureau ship; but his find had remained unofficial. The matter was never referred to the Expeditions Bureau, or to authorities in the Galactic Department. It received no attention or publicity whatever, and stayed buried in a mass of other records."

"Something's out of place there," Dagget muttered, grudgingly interested. "The Galactic Department usually doesn't slip up like that. Little things like newly discovered suns that might have planets are too important to overlook."

"The commander in question *wanted* the matter to be overlooked," Sprague said. "That showed in the way he worded his report and presented his figures. He didn't want to tell all, but at the same time he wanted to play safe in the event that official inquiries were later made."

"What do you suppose was his idea?"

"A likely guess is that he hoped the find would be important, and if important, he wanted to make it in something more than a routine and subordinate capacity."

"But how can you be certain that he made a jump to the Hindemuth system while in command of the Colonial Administration ship?"

"I checked on that, too," Sprague said. "If you take the galactic co-ordinates of the planet for which the Colonial ship was bound and run them off on a computer for deviations in the Hyper-Drive co-ordinates, you find

that one particular jump will end up in the general neighborhood of Hindemuth."

"All right," Dagget growled. "Say he came here. Where is the ship? Where are the colonists who were aboard? This fourth planet is the only habitable one in the Hindemuth system, and we've already searched most of it. This is the last great island. We haven't found any evidence—"

Dagget broke off; he was suddenly rigid. "The children!"

Sprague shook his head. "I know what you're thinking; but the Colonial ship vanished slightly more than four years ago. There weren't any children aboard. The colonists were all young married couples. And in four years they couldn't have had children as grown as the ones we saw... The children seem to be members of a race native to this world; a race living at a very primitive level of culture. We've seen no buildings, no towns or communities of any sort."

"That puts us exactly where we started from," Dagget pointed out with bleak satisfaction. "I'm glad to hear you finally admit it."

Sprague shrugged. "The instruments might have turned up something this trip. We'll check them as soon as we get back to the cruiser."

THE CRUISER stood roughly in the center of a small, shallow valley, looking like a slender metal tower as it rested in a vertical position on its massive rear fins. It was not a large craft, as hyper-ships went, yet it dwarfed the approaching jeet.

Sprague touched a stud to send out a radio impulse that would open an entrance hatch in the cruiser's middle section. Deftly, then, he piloted the jeet through the hatch and into a catapult cradle within the parent vessel.

The hatch automatically closed. Sprague and Dagget busied themselves with the instruments inside the jeet, removing the various types of recordings. With these they strode to a small elevator and rode up to the control and living quarters near the cruiser's bow. They reached the large, semi-circular room which was used as a headquarters, and here they removed their plasti-leather coveralls, retaining only the short-sleeved shirts and knee-length trunks which were worn aboard ship.

"I'm hungry," Dagget said. "Suppose we have something to eat before getting to work?"

"Eat if you want to," Sprague returned shortly. "I'm going to get started on the data we gathered."

He took a cigarette from a desk humidor, the green-gold tobacco showing through the thin, transparent casing. He puffed the cigarette alight, frowning.

"There's something about this world that bothers me, and I want to get to the nucleus of it. I've seen too many men die on too many worlds to ignore my hunches about this one."

"What do you think is wrong?"

"I don't know. It might be some quality about Hindemuth IV; it might be those kids we saw."

Sprague shrugged impatiently and gathered up the recordings. He strode into the adjoining laboratory.

Dagget followed, his hunger evidently forgotten.

They fell to work with various types of apparatus, moving with skilled swiftness. Sprague concentrated on the camera film; processing this, he inserted it into a projector, setting the editor mechanism so that only certain subjects would be shown on the screen. Then he connected the projector to a self-adjusting magnification device and switched it on.

Colored images raced across the screen. The first were of Hindemuth IV's terrain, a montage of forests and plains, of rivers and hill ranges. Then a scene came sharply into focus, greatly magnified. A group of children stood in a forest glade, staring upward. They wore no clothing. Untrimmed hair rippled about their shoulders: red hair and blond, brown hair and black. In physical appearance all seemed of the same approximate age, which according to Earth standards would have been some ten years.

The children were staring skyward in excitement and wonder. The jeet, which was obviously the focus of their interest, seemed to fascinate and puzzle them.

Then they were running to keep it in sight. Several called and gestured to companions elsewhere in the forest; others appeared, joining the original group; and the swarm of hurrying, slim bodies appeared and vanished between them and the forest floor.

The children were left behind; then they came back into view as the jeet swung around. Again they were running to follow its flight, laughing and shouting.

Finally the children were gone, and once the colors in the screen raced without form. Nothing else came into focus.

A frown on his long face, Sprague turned away from the screen. He sent a brief glance at Dagget, who had interrupted his own work to watch.

"Just the children," he said. "No adults, no buildings, no sign of the Colonial ship."

"This children angle doesn't make sense," Dagget muttered. "There would have to be adults somewhere around."

SPRAGUE shook his head in mystification. "We saw no sign of them—and the camera covers a lot of

territory. Children as a rule don't stray great distances from their parents." His mouth tightened. "I'm going to crack this if it's the last thing I do. The answer is here, somewhere—and I'm going to find it... Right now, we'll get this work out of the way."

They returned their attention to the recordings that remained. Silence filled the laboratory, a silence that seemed one with the vast, brooding silence of the world outside the cruiser.

Sprague felt the silence. It had a quality of mystery, of lurking threat. It was a thing that seemed to penetrate the walls of the ship by a kind of osmosis. It was like a presence that remained unseen wherever one might turn, watching and waiting.

A gasp from Dagget broke the silence. Sprague glanced at him, dropping a spool of metal tape that unrolled itself on the floor with a brittle, whirring noise.

"Ben—what is it?"

Dagget straightened convulsively. "Nothing. I just thought—nothing. Guess I made a mistake."

Sprague continued to look at the muscular, red-headed man. He had known Dagget too long to mistake the signs—Dagget was hiding something. Dagget looked steadily at a point on the workbench before him, not meeting Sprague's eyes. He rubbed a hand slowly down the side of his trunks.

Sprague crossed the distance between them with slow steps. He saw now that Dagget had been working over a radiation chart, a roll of thin plastic, marked with graph lines, over which ran an undulating red trail. The plastic roll had been placed in a translator and pantograph mechanism, which automatically recorded the data on a looseleaf sheet.

Sprague was turning toward the sheet, when Dagget interposed his body with a quick step.

"It was nothing, Phil—just a mistake."

Sprague said sharply, "At ease, Lieutenant!"

Dagget hesitated, his muscular features desperate. Then he nodded at what he saw in Sprague's face.

"Aye... Captain."

He stepped away from the workbench.

Sprague ran a quick forefinger down a column of symbols and figures on the sheet. The finger stopped; he drew in his breath, then expelled it in swift, startled words.

"Cosmium! There's cosmium here. The planet's filthy with it. If these figures are right—"

"They can't be!" Dagget said. "It must be some kind of a mistake. Something must have gone wrong with the apparatus."

Sprague shook his head slowly, studying the sheet again. "These radiation figures check perfectly for cosmium—right down to the last decimal place. If there had been even a slight deviation either way... But there isn't. The figures check. And, great space, from the intensity of the radiations, this island must be a regular cosmium treasure trove!"

Dagget said nothing; he stared brooding-eyed through the broad transalloy viewport in the curving wall of the semi-circular room.

Sprague probed at the red-headed man's expression. He said softly:

"You tried to hide this cosmium data from me, Ben. What was the idea?"

Dagget jerked his heavy shoulders. "No idea; just an attack of space fits, I guess." Then defiance blazed in his face; he indicated the room with a sudden, savage sweep of his hand. "We've been boxed up here, more or less, for over a year. I'm sick of it. I keep thinking of all the other

jobs like this ahead."

"Why don't you quit the Service, then?" Sprague demanded.

"And take a steady, day-to-day job at a lower salary? That's no solution." Dagget leaned forward, his ice-blue eyes bright and fixed. "But the cosmium here, on Hindemuth IV, is a solution. You know how rare the stuff is. Why, hardly more than a gram or two has ever been found at any one time. And only one sun system out of a dozen contains any cosmium, as a rule. A couple of grams of the stuff are worth a fortune, and there's more that that here—enough to make us rich a hundred times over."

SPRAGUE shook his head. "You seem badly mixed up about this, Ben. The cosmium we've found doesn't belong to us; it belongs to the Federation. We're representatives, not independent agents. We'll get a reward, of course, but—"

"A reward!" Dagget snorted. "A reward would be a piece of vacuum compared to what we could have by keeping the discovery to ourselves.... Look, Phil, nobody else knows about Hindemuth IV; the information is buried in Galactic Department records. And nobody knows we came here—nobody will ever have to know."

"We could easily falsify our records, hide every trace of our jump to Hindemuth. It would be simple to extract several grams of cosmium and sell it through agents in the System, keeping our own knowledge and identities hidden. That would be the start; with the money we could put an expedition together and return here."

Sprague shook his head again. "It's too big for us, Ben. If there's as much cosmium here as there seems, the whole thing could too easily get out of control. Furthermore, selling cosmium indiscriminately might all too easily

mean that it would get into the wrong hands. The Federation is still young and unstable, and a sudden flood of cosmium is one of the things that would almost certainly upset it and bring on a galactic war.

"The way you propose to handle it, cosmium would get around everywhere except in the one quarter where it's badly needed—in the hands of scientists. They've been doing some wonderful things with the pitiful scraps they've managed to get their hands on. With a good supply to work with, there's any number of miracles they could accomplish for the benefit of the race. And only the Federation could make it available to them cheaply enough and in quantity."

Sprague jerked his hand in a conclusive gesture. "I don't want to throw my rank around, but I will if you make it necessary. My decision stands, and further discussion is closed.... If you resist me in any way, Ben, I'll give you a dose of morphelon and take you back to the System in deep-sleep."

Dagget looked at the tall, spare man. Sprague stood very quietly, his long face determined and implacable.

Moving his shoulders as though against an oppressive weight, Dagget turned away. "Time we had something to eat," he said. "I'll get the auto-chef started."

Sprague remained beside the workbench, staring down at the record roll.

That night, while Dagget slept, he moved soundlessly through the cruiser and made certain electronic connections.

MORNING sunlight poured in a pale-gold stream through the headquarters viewport as Sprague and Dagget climbed into their coveralls.

"We'll land and have a close look at the kids this time," Sprague said. "And while we're at it, we'll take check re-

cordings on the cosmium data we got yesterday. We'll also take a last try at locating the colonial ship."

Dagget nodded equably, but his ice-blue eyes narrowed a moment later as Sprague picked up a small rectangular case.

"A couple of gadgets that might be useful in our interview with the kids," Sprague explained. "Let's go."

They descended to the hatch in the elevator. The jeet waited in its catapult cradle; entering, they adjusted the instruments at the rear of the cabin and then settled themselves in their seats.

Sprague's long fingers moved with swift skill over switches and buttons. The hatch opened, and with a kind of deliberate, smooth violence, the jeet shot into the outside air, impelled first by the catapult and then by the sibilant roar of its jets.

The cruiser fell away behind and below them, dwindling to toy-like proportions and then becoming lost in distance. The island's expanse resolved into a changing pattern of plains, hill ranges, and rivers. Bright silence lay like a crystal blanket over the scene; a complete, heavy silence, compounded partly of unrelieved wilderness, partly of absent moving life. No birds winged through the clear sky, no animal herds grazed on the rolling plains.

Sprague felt the silence close around him, and its quality of unseen threat fell like a chill over his thoughts. Here, on Hindemuth IV, was cosmium, one of the rarest and most valuable new elements unearthed by human science; cosmium in a quantity that meant power, not real and immediate power, but power in the abstract, the power that went with the mere knowledge that cosmium was present on this world. This knowledge could be the exclusive possession of a person or a group, could be an instrument or a weapon.

And the path to either possibility, he knew, radiated invisibly from the minds and desires of two men.

An undercurrent of wonder gathered in him. Cosmium was still a great mystery; scientists had not yet agreed on exactly what it was, or on exactly how it produced its effects. It possessed a strange sort of radioactivity, for while it made its presence known on instruments designed to detect radioactivity, it seemed to bear no relation to the familiar radioactive elements. But scientists had worked wonders with such few bits of cosmium that had come into their hands; the element produced astonishing and almost supernatural results in the treatment of human ills.

Sprague jerked into alertness as Dagget suddenly gestured downward. He had been aware in a detached way that the jeet had reached the forest and was winging over its vast mottled expanse. He saw now that Dagget had sighted a group of children in a glade below, and he sent his hands over the controls, slowing the jeet and swinging it around.

The children were running in pursuit as before, a tiny trickle of life through the green and shadowed immobility of the forest; and as the jeet moved in a semi-circle through the blue-green sky, they stopped and stared upward with eager eyes, awaiting further developments. It was as though they had sighted a butterfly or a bird and were at once pleased and puzzled by its antics.

Sprague circled several times, while Dagget watched intently through the binoculars.

"Just the kids," Dagget announced at last. "No adults again, no weapons or other artifacts. This group looks like the same one we saw yesterday."

"We'll land, then," Sprague returned. "And I guess we'd better pick

a spot far enough so the kids won't be in the way when we come down. They wouldn't know enough to avoid the jet stream."

HE SENT the craft skimming above the tops of the trees, and then, sighting a long clear aisle between the smooth brownish-green boles, he glided to a landing on the mossy turf. Preparing to leave the cabin, he reached into a compartment and took out a holstered automatic and belt.

"It might be a good idea to have a weapon handy," he said in answer to Dagget's glance. "On a world like this you never know what might happen."

"Maybe I ought to take one, too," Dagget said.

"One gun between us is all we'll need," Sprague said quietly. His eyes locked for a tight, bitter moment with those of the red-headed man.

Dagget shrugged. "All right, Captain."

Sprague buckled the automatic about his waist, gathered up his small case, and followed Dagget out of the jeet. The air in the forest was warm and had a spicy tang. There was a deep stillness, which was underscored without being quite broken by the plaintive rustling of leaves all around in a soft breeze.

Another sound rose above the rustling; the sound of voices. Down the shadowed aisle formed by the trees, running figures appeared. They approached swiftly, and soon they grew distinct as young boys and girls. They laughed and called as they ran, and their long hair flew and their slender arms tossed in unrestrained excitement.

They might, Sprague thought wryly, have been boys and girls on Earth, running to see a circus caravan that

had just arrived. Only he and Dagget were not much of a circus. There was no humor in them—not with cosmium here. Sprague hoped the children would not be too disappointed.

Those foremost in the running band presently slowed to a stop. The others in the rear crowded into them until they too became motionless. Across a mossy gap of some twenty yards, the men and the children gazed solemnly at each other.

The children had a wild look. There were perhaps a score in the group. Their hair was long and tangled about their small flushed faces, and their naked slim bodies were brown and sinewy. With wide eyes and open mouths, curious and yet hesitant, they stared at the men.

Sprague walked forward slowly. The children stiffened; muscles corded in their slender legs as they tensed for flight.

Sprague smiled. "Hello," he said.

The smile seemed to touch the children like a tangible thing; it spread through them like a ripple. Answering smiles appeared on their faces, and a slight blonde girl echoed Sprague's greeting in an awkward voice.

"Hel-lo," she said.

The others around her laughed, reassured and delighted by the sound. "Hel-lo!" they said. "Hel-lo!"

The girl stepped closer, and as several of the others nearest her moved to follow, the entire group was suddenly jostling and pushing as they swarmed about Sprague. They touched his coverall with exploring fingers, commenting on it in their clear shrill voices. Sprague could not understand them. There seemed a haunting familiarity in their words, but this might have been due to nothing more than the fact that they spoke in human tones.

"You...you kids," Sprague said abruptly, with a gentle intensity. "Where is everybody else? Why are you all alone here? How...just how can this be?"

The small faces about him turned solemn. The children seemed perplexed and troubled by his tone. They glanced at each other, and for a moment there was an uneasy quiet.

Then swift movements were suddenly audible. The children stared at a point behind Sprague. Alarm shooting an icy-hot flash through him, he whirled.

Dagget was disappearing into the cabin of the jeet. As Sprague started forward the door closed with a muffled thud, and through the transalloy shell he saw Dagget hurry into a seat and send his hands darting over the controls. Then he realized that the jets were partly turned in his direction, and instantly he saw his danger. He flung himself to one side, shouting at the children and waving them away.

PERHAPS his harshly urgent voice frightened them, or perhaps they dimly understood; but they scampered to shelter among the surrounding trees. Moments later the jeet took off with a sibilant roar, diminishing swiftly in size as it shot upward into the blue-green sky.

Slowly Sprague emerged from behind the tree trunk where he had taken protection, staring after the jeet with a resigned bitterness. Then he dropped to a squatting position and opened the small case, which he had been keeping clutched under one arm. This contained, among other instruments, a tiny radio set and power unit. He sent out a call to Dagget, which would be picked up by the other's apparatus in the jeet.

"Ben! Can you hear me?"

"I can hear you," Dagget returned. "But it isn't going to do you any good."

"Just what kind of a space crazy trick do you think you're pulling?" Sprague demanded.

"Space crazy!" Dagget flashed back. "You're the one who wanted to turn our cosmium discovery over to the Federation. If that's the way you feel, you can stay right here on Hindemuth IV and think of all the fun you're going to miss. I'm taking the cruiser and hypering back to the System. I'll see you later—if you're still alive when I get back."

"Don't be a fool, Ben! You'll never get away with it. Headquarters will give you a thorough scanning over what became of me, and—"

"Headquarters will never touch me. I have the right kind of information, and I know the right kind of people. I'll get all the help I need."

Sprague sighed. "All right, Ben, now I'm going to let you in on a little secret. I've changed the frequency of the cruiser's hatch opening mechanism. You don't know what that new frequency is. If you use the wrong frequency in trying to get into the ship, you'll close a circuit that will set off the engines. The cruiser will take off for space without you—if, of course, you aren't killed by the blast. Remember, Ben, you can guess about the frequency—but you'll have to be right the first time."

Sprague's receiver made a strangled sound, then clicked into silence. He replaced the radio in the case and glanced around at the children, who had slowly approached to watch in puzzled wonder as he spoke to Dagget. They seemed wary and uncertain, as though not yet entirely over their fright. He smiled at them, a wry, tired

smile, and then spoke.

"Hello again, kids. I guess we ought to get acquainted, since it appears I'm going to be with you for quite some time. What are your names? Mine's Phil Sprague."

The children said nothing. They smiled back at him, and one of them laughed softly, a glad, comforted sound.

TWO DAYS passed. Sprague remained in the forest with the children. He did not know to what lengths desperation might drive Dagget, and there was protection among the trees.

The children seemed delighted with his presence, as though finding in him the fulfillment of some long-felt need. They never strayed far from him, and they watched him anxiously whenever he moved. They followed like so many small frisking shadows, pulling and shoving for the opportunity to be closest at his side, as growing restlessness drove him into aimless walks through the forest.

Food was no problem for Sprague. The children brought fruits and nuts from the forest, and cup-shaped leaves filled with a sweet, milk-like sap. His tests told him that these were edible and nourishing enough, and he knew he could subsist in this fashion for an indefinite period—longer, at any rate, than Dagget, whose only provisions were a kit of emergency rations in the jeet.

The children spent the still, deep nights wherever they happened to be in the forest. They would gather leafy boughs and make mattresses of these, curling up on them, like puppies, in groups of three or more. Sprague's comforting nearness was as usual eagerly sought, and he found he did not mind. He felt a kind of bond growing

between the children and himself; he was beginning to know them as individuals, to sense the thoughts behind their childish, simple speech. And oddly, concern with Dagget, with the cosmium find, began to recede in his thoughts like problems of another and entirely different existence.

But he was not allowed completely to forget. In the morning of the third day he caught sight of the jeet, far in the sky, cruising over a distant part of the forest. He cautioned the children to remain out of sight beneath the largest trees. He made them understand, and they were quickly amenable, seeing it as a game.

After that he hovered over the radio set, waiting. A few hours later he heard Dagget's voice, heavy with a note of desperation.

"Phil! Are you listening, Phil? I want to talk to you."

"I'm listening," Sprague said. "What's on your mind, Ben?"

"Phil, where are you? We can't go on like this. We've got to get together and talk this over."

"There's nothing to talk over, Ben. I don't see any compromise on this cosmium situation. We can use the discovery your way or my way, but not both at once... And I think my way is best, Ben. When you're ready to agree, I'll tell you how to find me."

Dagget was silent for a long while. Then his radio clicked off.

Sprague sighed and stared emptily into the forest. He felt a touch on his arm; he found himself looking into the worried eyes of the slight blonde girl, whose name seemed to be Karreb. He grinned and rumbled her hair, and as she shrieked her delight, he picked up the case and rose, knowing that Dagget might very well have used the radio contact in order to obtain a directional fix. He and the

children would have to move to a new spot, and quickly.

He gestured and called to them, using a few of the simple words he had learned. Then he trotted into the shadowed green maze of the forest, and the children followed, laughing and frolicking.

Sprague traveled, with occasional stops for rest, well into the afternoon. The children seemed tireless as they romped through the trees and the undergrowth, their laughing voices weaving an ever-changing pattern of sound. They ate as they went, snatching up the fruits and nuts which were present everywhere in abundance and gathering leaf-cups of milk-like sap during the rest periods.

SPRAGUE himself was not a little surprised to find that he felt no serious fatigue effects. He seemed filled with a youthful vigor almost as boundless as that possessed by the children themselves. It was as though the days he had spent in the forest had given him a new strength and endurance.

The forest gradually thinned out, and at last Sprague realized that he and the children had been moving toward one edge of it. He was in doubt about leaving the shelter of the trees, but curiosity impelled him to see what lay ahead. Further, he sensed it might be wise to seek concealment in some less obvious location, one less likely to be searched by an increasingly desperate Dagget.

Sprague paused often to scan the blue-green sky. It was still cloudless, still serene and empty of life. The jeet had not been visible since that morning, and somehow that worried Sprague. He suspected a stratagem on Dagget's part; the other had not resumed radio contact as he would have

done in the event that he had realized the hopelessness of his position and decided to give up.

At last Sprague and the children passed beyond the forest's edge and reached the lip of a broad gulley where a large stream had once coursed and where now only a thin trickle of water crept. Some change in the land, it seemed, had dammed the stream and sent it flowing in a new direction. Only the gulley and the thin trickle within it remained.

Finding a way down to the gulley floor, Sprague descended. The children scrambled after him, laughing and unhesitating, agile as mountain goats. They did not understand the sense of peril that drove Sprague; this was an adventure to them, and he was content to let it remain so.

After another short rest, he chose a direction at random and resumed the march, keeping well within the shadows to one side of the gulley walls. In this way, a short time later, he came to an obstruction. A landslide or a cave-in brought down the gulley wall at this point, filling the channel almost from one side to the other.

Sprague was studying the huge mound of gravel and sand, when he saw a gleam of curved metal. He stared at it for a long moment, stunned and disbelieving, a wonder kindling and becoming a vast flame in his mind. Then he was running crazily, clawing his way up the mound, tearing away great handfuls of sand and gravel.

A few seconds later he was certain that he had found the long-lost Colonial Administration ship.

He continued to dig. The children scrambled up the mound to help him, and he motioned to direct their activities. They jostled and laughed, and their slender arms swung as they sent

handfuls of debris in a steady shower through the air.

Sprague laughed, too. For this was the answer to the stalemate between Dagget and himself; this was the means of victory. It was Dagget who would now be marooned on Hindemuth IV, since he would meet with immediate frustration in any attempt to enter the cruiser.

Sprague, however, had a ship—if it had not been too damaged to be placed in operation. The possibility sobered him.

He speculated on how the vessel had come to be here. Originally, no doubt, it had been landed in a spot above the gulley. Later there had been a cave-in of the supporting earth, caused either by the weight of the ship, or by some process of erosion. The vessel had tumbled into the gulley, becoming partially buried. It had not been visible from the air, not even to the all-embracing eye of the jeet's camera.

IT WAS ONE of the children who presently discovered the entrance hatch, and Sprague hurried over from the place where he had been digging. The hatch was open but partially filled with sand, and more digging was necessary before he could enter. Finally he groped his way into the darkness and silence of the ship's interior. The children trooped after him, subdued and quiet with wonder.

He was familiar with the design of this type of ship, and soon he located an emergency light switch station. The lights worked; illumination flooded the stairways and corridors of that immediate section. He found other stations, and a quickening pulse of life now stirred in the vessel's metal carcass.

With the children following in awed muteness, Sprague hurried through the deserted corridors, pausing to glance

into compartments as he went. There were no signs of tragedy, nothing to show that there had been an attack, mutiny or sickness. No remains of bodies were visible anywhere; the compartments were clean and neat, giving no evidence of damage or theft. The ship's passengers seemed simply to have left. And they had left very quietly and calmly, it seemed, taking nothing, disturbing nothing.

Sprague found the captain's cabin, where he at once fixed his attention on the ship's log. But this did not explain what had become of the passengers and crew. The landing on Hindemuth IV had been made safely, and subsequent entries mentioned nothing more momentous than the fact that cosmium had been reported present on the island. The last entry had been made a week after landing, and discussed only the steps that were being taken to settle the colonists in their new habitat.

The rest was silence. The captain had not again touched the log. Sprague sent a slow glance around the cabin and uneasily wondered why.

He went to the control room. Here again were silence and emptiness. There were no signs of disorder or damage. A glance at the meters and gauges above the pilot's console showed that the reactor furnace had been properly deactivated. A supply of radioactive fuels remained in storage, and automatic devices would easily assemble them to power the Hyper-Drive generators.

He tried the switches and buttons on the console; colored signal lights blinked in response. The ship was still in operating condition. It had not been harmed by the fall into the gulley, having been designed to withstand stresses even more serious.

Sprague was satisfied. Everything was ready. He had only to—

He peered around the control room, puzzled. He had a sudden, overpowering feeling of disorientation. He could not remember how or why he happened to be here. The severely utilitarian room seemed strange. He felt that he should be somewhere else entirely; he could not decide where this was. The memories he sought eluded him; they hovered tantalizingly far back in his mind, flirting on the brink of awareness, but never crossing it.

He squeezed his eyes shut, standing very still. Somewhere beyond the control room children laughed and children's footsteps pattered through the corridors. And as though dissolved by the sounds, his queer amnesia was gone.

Foreboding remained. He knew that inexplicable sensation would return, for this was not the first time he had experienced it. There had been other instances of late when he had noticed a vagueness in his thoughts, when he had felt his memories becoming dim and unreal. Only now the feeling seemed to be growing in frequency and depth.

He heard the children laugh again, heard their footsteps approach. He turned slowly from the pilot console—and saw Dagget in the control room doorway.

Shock thundered through Sprague. He reached for the automatic in the holster at his side; he became motionless as he saw that Dagget's own weapon was already centered with lethal readiness on his chest.

A GROUP of children had preceded Dagget into the room, their small faces showing delight over his return. But now, as they grew aware of the tense, hostile expressions of the two men, their smiles faded. They stood frozen, sensing that the situation was

not quite right, but puzzled over the reason.

"Why don't you go for your gun, Phil?" Dagget asked softly. "I wouldn't mind killing you—not after what I've gone through. I'm going to kill you anyhow, you know."

Sprague was staring at the red-headed man. Dagget seemed queerly changed.

"So you traced me here, Ben," Sprague said at last. His voice was bemused; his mind was not on Dagget but on a matter even more important. A pattern, previously bewildering, was now becoming clear.

Dagget smiled thinly. "I got a directional fix on my last radio contact with you. I landed and then used radar to locate the route you and the kids were taking through the forest. I set out after you. I caught up just as you were crawling into the ship."

Sprague's thoughts had a diamond-sharp clarity. Dagget went on, his voice stronger and harsher, yet still he seemed to speak from a distance.

"You kept me from getting the cruiser, Phil—but you aren't going to keep me from getting *this* ship. I've seen enough to be certain it's in working order. I'm going back to the System with my information about the cosmium here—and I'm going back alone."

Sprague shook his head slowly. "You're not going back, Ben."

"Are you going to stop me?"

"No," Sprague said. "Something else is going to stop you, Ben. The cosmium here is going to do that."

"You're crazy! How could cosmium possibly—?" Dagget broke off, blinking, as though to clear an obstructing mist from his eyes. He rubbed the back of his gunhand over his forehead, looking dazed and puzzled. He

seemed to have forgotten the weapon he was holding.

"Cosmium," Sprague said, fighting to keep his new-found clarity from becoming lost. "Cosmium is at the bottom of everything. I should have guessed it before, but it became clear only a moment ago—too late, Ben... too late."

Dagget blinked, and desperately Sprague went on:

"Ben...listen. You've got to understand everything I say. There isn't much time left—I can feel it.

"Ben, cosmium has a powerful effect on life. Scientists back in the System have already learned that much in experiments with small amounts of it. Small amounts—and you and I have been exposed to a greater concentration than has ever existed in any one time and place. As a result one certain effect has become clear: continued exposure to unusually large amounts of cosmium results in a steady reduction or dissipation of bodily mass—most likely as energy. In human beings there is a curious kind of physical regression. I suspect that this reaches equilibrium according to the amount of cosmium to which the body is exposed.

"You've noticed that there is no animal life here, Ben. Because of the highly specialized type of cellular organization needed, animal life never got the chance to evolve. Cosmium made that impossible."

Dagget looked dully confused and uneasy. "You must be losing your mind," he muttered.

SPRAGUE nodded gravely. "I am losing my mind, Ben—and so are you. Just as the colonists lost their minds. A short time after they landed, something happened to them. They... forgot. They left the ship and never

came back. They simply forgot all about it... Because, you see, in a dissipation of bodily mass the cells are affected, and in the brain this means a loss of memories—amnesia."

"You're trying to trick me!" Dagget whispered. "But it isn't going to work. I'm hypering back to the System in this ship, and you aren't going to stop me. I...I'm going to kill you. Now...."

The weapon in Dagget's hand moved to point squarely at Sprague. Dagget's finger tightened on the trigger.

"Look at your uniform, Ben," Sprague said. "It's getting too big for you. We've been here almost a week, you know. That was long enough for the cosmium radiations to start working on us."

Dagget looked down at his coverall. He plucked at it, forgetting the weapon in his hand. It fell to the floor.

Dagget smiled in puzzled wonder at Sprague. "Why, it is too big!"

The feeling of disorientation swept once more over Sprague. He had been keeping it at bay, but his massive effort of will had finally weakened. He made a tremendous last attempt to drive the dimness back.

"I've got to leave a message before...before I forget. I've got to... If only—I...."

The last attempt failed.

"Too big," Dagget said. He laughed. He stripped the coverall from him and tossed it aside. "I'm hungry," he said.

"There's plenty of good things to eat in the forest," Sprague said. He grinned and hurried impulsively toward the doorway. "Let's eat!"

The watching children laughed. The strangeness of the past several minutes was gone. Everything was all right again. They shouted and called to each other and followed the two

Continued on page 122

Beyond the Universe

By STANTON A. COBLENTZ

As an introduction to Mr. Coblenz's very interesting cosmic story, we refer our readers to the sonnet at the head. Mr. Coblenz has written very beautiful poetry and this is an excellent example of one of the difficult kind of poem—the heroic sonnet.

ACROSS ETERNITY

Ranging the timeless, starry halls of
space,
I saw the planets, each a head of light,
Go whirling round, in pirouetting
flight,
Across the heavens' firefly-glinting
face;
While the moon—radiant mansion of
our race,
Swift-circling as a top amid the night,
Twisted and spun; then waned before
my sight,
Turned ember-red, and passed with-
out a trace.

But not a ripple stirred the twinkling
void;
The suns and systems swung about
the gloom,
Lone and unaltered; silvery fires of
birth
Glared from a nebulous mist; and
worlds destroyed
Strewed sparks and ashes . . . till,
from out their tomb
Rose the pale orb of many a reborn
earth.

—Stanton A. Coblenz.

EVER since I was seventeen, I have been obsessed by a strange idea. Even during my freshman year at college, at a time when my companions were more interested in baseball, football and the fair sex, I was pursued, tantalized, almost persecuted by a belief which kept cropping up despite every effort I made to forget it. It was as if some implacable demon had taken hold of me; my thoughts kept turning to the subject of time and space, and of fourth dimensional expanses; and though I had not yet heard of Einstein, I had worked out a theory of relativity whose implications went beyond those of the famous German savant.

How the original notion came to me I

do not know; but I became convinced that not only was there no absolute measuring rod for time and space, but that the human mind might under certain conditions transcend both space and time as we know them, might perceive cons in the lapse of what we now regard as seconds, or seconds in the lapse of what we regard as cons; and, similarly, might rise to gaze upon the Milky Way as one gazes on a thimble, or dwindle to see an atom as we see the starry firmament. There were innumerable factors which confirmed this view in my mind, although originally it had come to me more by intuition than by reasoning: the known illusory qualities of sense perception, and the fact that light-rays may be magnified indefinitely

by the microscope and telescope; the existence of micro-organisms which though their consciousness be but rudimentary, must be aware of spatial units too minute for our own apprehension; the fact that insects, with their agile movements and their innumerable wing-beats each second, are evidently attuned to a different time-perception than ours; the phenomenon of sleep, which causes time to pass immeasurably faster than during our waking hours, and yet may give us a long-protracted dream within a moment; the prodigious speed of the waves of light and electricity, which seem adjusted to a different spatial universe than that of our crawling earth-lives; and, finally, the tremendous reaches of past time and the almost inconceivable distances of the stellar universe, which would argue for the possibility of a mind that can look across ages and light-years, as we look upon the life and movements of a May-fly.

This did not mean, of course, that any human mind would ever be able to attain such powers. Yet was it not possible that, if one could slip into another dimension; if one could pass beyond the limitations of our earth-bound bodies and perceptions; if one could glance down upon the whole time-space scheme, instead of regarding it, so to speak horizontally, one might be able literally to peer upon the universe as upon an apple in the palm of one's hand, and might see the centuries and milleniums roll by like ripples on the surface of a stream? To rise to the height and breadth and length of the universe! to see all, to know all, to be a spectator of all the worlds and ages!—such was the grandiose scheme which I formed, and to the consummation of which I consecrated my life.

It is little wonder, therefore, that my companions regarded me as a trifle odd.

It is little wonder that they thought me slightly "cracked," when, as a student, I would stay home absorbed in philosophy or would devote myself to investigating some obscure drug in the "chem" laboratory, instead of joining them at a track meet or dance. And it is even less wonder if my colleagues stared at me suspiciously when, after my appointment to an instructorship in chemistry at Bradford College, I still went my eccentric way alone, giving myself to solitary studies and to secret experiments that often would occupy me half the night. From the beginning, I had learned that it was futile to attempt to take any one into my confidence, since my companions would begin by gaping at me as if doubting my sanity, and would end by advising me to "forget my day-dreams." Hence it was a lonely course that I pursued on the way to discovering the greatest of all truths.

Yet I labored persistently, since from the beginning I had not been without a valuable clue. Each human being, it seemed to me, was like a clock timed by nature to run at a certain speed: to perceive the hours and years pass by at a particular rate, to observe space from a particular vantage-point. Change the basic speed of the machinery, however, and one might look upon another dimension: time might go by us at ten times, a hundred times, a hundred thousand times its present rate; space might dwindle to a tenth, a millionth, a million millionths of its present dimensions! But how could this be accomplished? Obviously, by some chemical that would affect the nervous system in such a way as to upset the present gearing of the mechanism. This was already done to some extent, as I knew, by certain drugs, such as *hasheesh*, which might seem to prolong time incalculably; but it was necessary to achieve

the results on a far vaster scale than anything hitherto attained.

It was to this problem that I gave myself for the better part of twenty years. Often the difficulties in my path appeared insuperable; yet slowly I overcame them all, and by degrees was moving toward success. Through experiments with animals I had ascertained that a combination of morphine, belladonna, and certain rare organic salts, in carefully measured proportions, would affect the nervous system in such a way as to obliterate all common ideas of time and space. Dogs subjected to the combination seemed to fall into a sort of trance in which they were actively alive (heart-beat and respiration were nearly normal, eyes were wide-open and staring, occasional growls issued from their throats); yet they were unaware of the scenes about them, and, upon regaining their faculties, seemed like creatures tormented by bad dreams. Cats and guinea pigs, in their own way, reacted similarly; and one of my laboratory assistants, who chanced to inhale an incautious whiff of the concoction, went off into ecstatic visions like those of an opium smoker, and revived to tell of a dream of seeing the earth dwindle to the size of a pebble swift-whirling through space . . . Clearly, I had no cause to be discouraged!

To report my innumerable precautions and counter-precautions would be to drag out this narrative needlessly; let me therefore pass on to the extraordinary climax of my twenty years of research. Let me tell of that adventure which, unique in human experience, would have justified not only twenty years of effort, but fifty, sixty, or a hundred!

So, at least, I have always maintained, although I know that there are many who think otherwise. To me it seemed that I was reaping a fit return for two decades of toil, when at length I had

perfected the formula of my time-space drug and stood ready to perform the experiment that would finally demonstrate its efficacy.

How to secure suitable assistants for the experiments was at first something of a problem. But, after some delay, I managed to corral two fellow chemists, and, on a never-to-be-forgotten thirteenth of November two years ago, induced them to accompany me to my rooms to witness an unusual scientific experiment. Little did they realize how unusual it was to be!

They looked at me a little queerly. I know, as I went through the preliminaries; they passed many annoying questions as to the inhalator I had rigged up, and the arrangement which permitted me while lying on my couch, to breathe the fumes produced by a solution of the time-space drug and conveyed to my nostrils through rubber tubes from the large glass generator at the further end of the room. "What's the matter, Harrington?" I remember one of them asking, with an attempt at jocularly that did not quite conceal his puzzled frown. "Getting ready for an operation?"

"Looks that way!" agreed the other. "Can't you smell the ether?"

"Will you gentlemen please be serious?" I demanded, turning on them with not a little irritation. And then, after they had sobered down a little, I instructed them, "I've brought you here to see that, after the gas-tube has been placed between my lips, it remains tightly in place for half an hour and then is removed. During the interval, I want you to take exact note of my appearance and reactions. That is all! We may now begin!"

Having arrayed myself in a loose cotton robe, a little like a nightshirt, I stretched myself out on the couch, took a long breath, reached for the gas tube,

and—while my assistants stared at me wide-eyed—thrust the rubber nozzle firmly between my lips, and pulled down the gas-release lever.

Instantly the room and my two helpers faded from my vision. Instantly I was overcome by a delicious, exquisite sensation, as though I had drunk of some divine elixir, which produced a feeling of unutterable lightness in my limbs, a sense of well-being such as one experiences on reviving from a refreshing dream. At the same time, I had the impression of rising from my couch, and of moving through great distances with tempestuous velocity. It seemed that all about me was fog and vastness; it seemed that I fled through limitless, labyrinthine corridors; it seemed that a gigantic door slammed shut behind me—and then, as by slow degrees my senses cleared, it came to me that I had stepped out upon another dimension!

I do not claim it was the fourth dimension—it may have been the fifth, sixth or seventh—all that I know is that it gave me a range and power of perception, inconceivable to the ordinary earth-bound man. I found myself—or, rather, some projection of me—suddenly free of the limited vistas of three-dimensional space. I found myself released from my five chained bodily senses; I could see far through time and immensity. It was as if some all-enveloping vision had come to me; I was outside the earth, staring down at our world, which resembled a luminous whirling marble against the satiny black void; staring down at the whole Solar System, whose lighted spheres swung in their orbits about the blazing yellow-white ball that dwarfed them all by its size and fierce brilliancy. Even as I gazed, years and centuries went by; the earth swung in innumerable revolutions about the central orb, and the larger

bulks of Jupiter and Saturn whirled through scores of their protracted years, nearly twelve years for Jupiter and nearly thirty years for Saturn.

Yes! even as I gazed, generations were born on our planet, generations were reared and passed away, wars were fought, dynasties toppled, nations crumpled and fell apart . . .

But while these visions came to me, the scale and scope of the spectacle was ever altering. It seemed that time kept moving faster and faster; the planets were rushing about the sun at a constantly accelerated speed, until the revolutions of the earth became rapid as the gyrations of a summer gnat. And, simultaneously, space appeared to be contracting; the Solar System grew smaller and smaller, until its minor fragments were lost from view and there remained only the sun, whose pea-like disk glared from the remote obscurity.

Now the heavens themselves seemed to be drawing down to meet me; I was flying off into the heart of the Milky Way, which moved near with a velocity both terrifying and enthralling. Fascinated, I found myself in the midst of blazing star-clusters, whose myriad suns stared out at me like the jewels of some radiant tiara; with an incommunicable ecstasy, I peered into the abysses of vast gaseous nebulae, all cloudy-shaped and mysteriously glowing; ravished with joy, I gazed at the giant suns, Arcturus and Betelgeuse, and the red Antares, and at systems of double and triple and quadruple suns with their streams of planets strewn about them through the black void. And all the while I rose and rose and rose, and time—as measured by the movements of the stars—seemed to go by more rapidly; while space—as measured by their dimensions—seemed ever to be contracting.

The spellbound rapture I felt had mounted to delirium by the time the

Milky Way itself had dwindled before me to the apparent size of a lighted window in space; and the whole vast system, with its hundreds of millions of suns and its distances of hundreds of thousands of light-years, had taken on the blurred complexion and the crab-like features of a spiral nebula. But still out and out and out through the silences of immensity I winged my way. Other spiral nebulae appeared, growing larger as I approached, then receding and disappearing to misty points; whole colonies of spiral nebulae, whole galaxies of suns, Milky Ways and super-Milky Ways never reached by the most piercing earthly lens, became visible to my dazzled sight, each constituting no more than a glowworm glimmer against the illimitable night. And there, too, rapidly diminished, until they had all vanished and I seemed to have touched the edge of absolute blackness, from which there proceeded no flicker, no gleam, no motion—the dead blank beyond the living universe, the nothingness at the borders of space!

As I reached this impenetrable verge, my ecstasy mounted to a climax. "Behold!" I seemed to say to myself. "I have become mighty as the cosmos! I have seen through centuries and eons of time! I have voyaged across infinity to its furthest limits! I am mighty as all creation! I am great as God Himself!"

No sooner had I conceived this thought than a chastening answer came from within myself. "Ah, no, little mite, you are still puny as an atom!" And as this reflection thrust itself at me, I seemed to be moving through that blackness beyond the universe—out, out through the further gloom at a velocity beyond the power of words to express or of mind to conceive. Then, after a long, terrorizing interval, other lights began to glimmer out of the distance. And as I drew nearer and could dis-

tinguish their outlines, I was as one overwhelmed by a sight too prodigious for comprehension.

I could make out the pale, glowing forms not of hundreds but of thousands, tens of thousands, perhaps hundreds of thousands of minute spiral nebulae, each a galaxy composed of myriads of suns. And these galaxies were themselves combined into a galaxy of galaxies, in which each individual Milky Way was as a separate star. More than that! as my vision expanded, I apprehended that the super-galaxy was itself but a mote in an infinitely larger galaxy of super-galaxies, which itself was apparently—

But here my vision halted. Having traversed the whole visible universe, I had indeed explored but an atom, a mere infinitesimal part of an incomprehensible vastitude. Had I not been like Tantalus reaching for the fruit that ever retreated for his clasp? Suddenly a great feeling of weariness, of smallness, of futility overcame me; the light of the galaxies faded from my sight; in my ears there was a roaring as of a whirlwind; my mind became vague and confused, something seemed to have snapped within me, and I felt as if dropping through bottomless distances.

* * *

When I opened my eyes again, it was to see the sunlight glaring on the walls of a whitewashed room. I was lying on a little cot; at my side sat a white-robed woman who looked down at me solicitously. "Take it easy. Do not exert yourself," I thought I heard her murmur. "You are still very weak."

As she uttered these words, I let my eyes rove about the room, until they chanced to rest on a calendar that hung near the door. "May 13," I read. Could it be that I was dreaming? When I had

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The Rape of the Solar System

By LESLIE F. STONE

For some time we have hoped to have one of Miss Leslie Stone's quite charming stories appear in our magazine. In this tale she deals with Pluto, the recently discovered planet, in its lonely orbit far outside of even Neptune's path and then she takes us to Mercury, the planet nearest to the sun—but we must not tell the story in advance and we promise our readers a delightful bit of reading.

NO one can know the thrill and elation that was ours on that adventurous day when Cart Ferris and I stepped within the Plutonian astronomical observatory. Words fail to express our emotions as we stood on that time-cracked floor and gazed, open-mouthed, at the giant telescope that pointed its five hundred foot barrel toward the skies; it was too far beyond our expectations.

"You know what this means, Jerry?" asked Cart. "Life on Pluto? Gosh, I wish we could meet the guys that built that telescope. Look, the reflector's easily two thousand feet across! Can you imagine the sights they saw in *that*?"

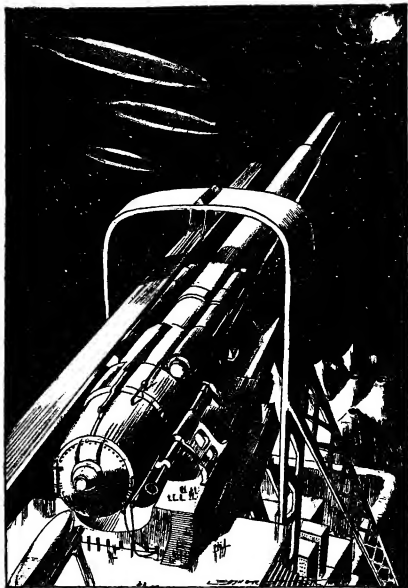
Carefully, as if it were a precious jewel Cart wiped away the encrusted hoar frost that lay upon the giant mirror cracked now and discolored by untold ages. Hoar frost lay over everything of Pluto, gases frozen solid by

the terrific pressure and cold. It crunched under our metal encased feet, hid the lineaments of the vast chamber, as it covered the ground outside the observatory, upon which we had accidentally stumbled.

Certainly, we had not looked for the evidences of a past civilization upon Pluto. But it was here, in all its awesome wonder.

"Life on Pluto," mused Cart, "the outpost of the solar system. I wonder if they were men?"

His words made us thoughtful as we considered the various types of life we had encountered during our years of vagabondage around the system, two foot-loose fellows with a wanderer's itch. There had been the plant-men of Ganymede, the crawling things that had spawned upon Titan, the blind-bat creatures of Io, the diabolical red snakes of Hyperion. Yes, what type of life had Pluto fostered, that had conceived this monster telescope?



Then Luna struck! Seemingly quiescent she had been building a great machine upon her surface, a machine capable of tossing huge projectiles upon earth, only 238,857 miles distant.

Bare, except for the great instrument, the room told us nothing. The mechanisms, corroded, frost-covered, that had once controlled the telescope may have responded to any manner of hand, claw or talon. But it was evident that the creatures, who had reared the great machine and had ground that immense mirror, were of great scientific and mental development. Were they men?

Our answer came sooner than we had dared to hope. Glancing about the chamber I descried the outline of a doorway etched in the hoar frost that cloaked one wall like an arras. Prying and probing with our crowbars we managed to yank open the heavy metal barrier, a heavy door eight feet high with a peculiar arch. Flashing our lights within, we stood peering into the room thus revealed, a small room.

Something had lived in here at one time, something that had lived and breathed and felt the outside chill, for in the center of the room we saw the remains of a fire! There they were still, the sticks and ashes laid upon the bare stone floor, surmounted by a small stone-hard pot held in position by a tripod.

Even now I can wonder that these mute evidences had remained through the ponderance of the centuries, but the cold had preserved them, preserved them in nature's vast refrigerator. True, a light tap would shatter them like brittle glass, but they had withstood time long enough to tell us the sad story of that lonely observatory room.

Nor were the fire-remains all the room held. Against one wall stood an immense clothes chest, and there was a table, square and heavy upon which stood several odd shaped dishes of some strange uncorrosive metal, beside a beautifully artistic lamp, all encased as everything was here, in hoar frost. And there was a pallet bed, long and nar-

row, its comforts gone, only its metal frame, gaunt and brittle, standing unoccupied.

ALL this we saw in the first gleam of light. Cart had gone directly to the table to pick up the dishes in his mailed hand, gingerly. He wiped away the frost carefully, holding up one dish for me to see. "Look at this carving, Jerry. It's the most . . ."

But he never finished his thought, for I was suddenly screaming his name, pointing at the thing that had startled me as I turned my flash into the opposite corner of the room.

It lay sprawled half atop a small curved-top chest, feet caught under it, arms thrown across the chest, head upon one out-stretched arm. Shrouded it was in frozen icicles that threw back our light beams in dozens of unearthly colors, but we could make out the form easily—the lineaments of a man! The last man of Pluto!

Together, as if in a trance, the pair of us tip-toed to the figure's side. Yes, tip-toed. Unconsciously, my hand slipped toward my head before I recalled that my hat-holder was enclosed in the helmet of my space-controller.

"A man," breathed Cart softly, "*genus homo sapiens . . .*"

He got down on a knee and trained the flash upon the figure's face. It was difficult to determine the form of the features under its covering of frost. "Shall-Il we wi-pe off the fro-st?" I wanted to know, entirely unashamed of my awe.

Cart, who usually made decisions for both of us, knelt in silence several moments as he studied the body. "Guess it won't hurt. This fellow's frozen stiffer than a block of ice. S'funny thing. Must have fallen here and frozen to death . . ."

"You don't think it's a statue, do you?"

"Hum—might be, at that, but s'funny place to put one, if you ask me. Somehow—I've the feeling that it was alive once upon a time. You know, if a man died in a sub-zero temperature, and it kept getting colder and colder there isn't any reason why he shouldn't continue to exist like this. You know, back home, they still find mammoths frozen in glaciers, meat fresh, hair in place, and maybe 25,000 to 50,000 years old for all we know. Come on, kid, we'll take a look . . ."

It was an eerie job removing the scintillating icicles from that face, a face a little blurred as the flesh had sunk and shrunk through the ages. But blurred though it was, we could not miss the serenity of its beauty, the clean symmetry of the high forehead, the straight sweep of the high bridged nose, the fine molding of the lips, the clean-cut line of the jaw. It was the face of a man of strong purpose, of high intelligence.

The color of the skin was like old, well-tanned leather, but whether the color was due to its frozen state or was natural, we could not tell, no more than we could guess at the color of the eyes beneath their closed lids, set in sunken sockets. The hair, some of which came away with the frost, was as white as driven snow, as were the curved eyebrows, and the remains of a flowing beard.

"He was an old man when he died, Jerry, but I wonder why he died here, stretched across this chest instead of in that bed over there? Looks like he was still hale and hearty when he passed out . . ."

"Maybe he died protecting that chest from someone—or something . . ." I put in, and then realized how silly my words sounded as Cart answered,

"Sure; and in that case the chest would be gone. I guess, when he felt the end coming, he merely crawled over here—to caress the most precious thing he possessed . . ."

"HUH? Say, in that case don't you think we ought to take a peep-see, and find out what was so precious about it?"

"Sure. Here—give me a hand, see if we can move him . . ."

Gently, so as not to break the brittle body we partly lifted it. Cart shoved the chest aside, and then, with utmost care, we lowered the body to the floor. However, due to the position in which it had frozen, it could not lay flat, and rather than take a chance that it would crack in two, I got the pot from the fire place, and we put that under the breast and head so that the old fellow remained in the same position in which we found him. Then we turned to the casket.

It was highly carved, in bold relief. Connoisseurs who go in for that sort of thing have since raved over the workmanship displayed, the beautiful simplicity of its lines, the delicacy of its artistry, but Cart and I were only curious about what it held that could have been so precious to the old man.

"Looks like some kind of writing on it, Jerry. Funny looking stuff, hieroglyphics of some sort. And here's a man and woman with arms about each other. But wait—what's this . . .?"

I, too, was looking. It—it looks like a drawing of the solar system, Cart."

"Right. Look, every planet and satellite, according to size and orbit, even the moons. But wait—no, it's not the solar system after all—see, there's ten planets, one beyond Mercury, and another one between what could be Mars and Jupiter, none where Pluto is. No, this can't be the solar system after all . . ."

Let's puzzle it out later. Look and see what's inside."

To our surprise, for we had expected it locked, the chest opened to our touch, stiffly and creakingly to be sure, but it opened.

Training our light beams within we stared in surprise at the chest's contents, hundreds of paper-thin sheets of a copper-colored though untarnished metal—covered with the same strange hieroglyphics as on the outer surface of the casket.

"Records . . ." I said with some disappointment, "nothing there for us."

"We don't know, Jerry. Just think—if it's a history of Pluto—what a find!"

"Yeah—but have you thought about reading them?"

"It's been done before, you know—archaeologists have deciphered several dead languages—of course, we need a key. Say, look—here's the same planetary system again." As he spoke he was gingerly lifting several of the sheets out of the chest, spreading them apart.

The one he held before me was, as he had said, a duplication of the drawings on the chest's top. These were done in color, etched into the indestructible metal, but in addition to the drawings were word-terms, one beside each planet.

"And look at this, Jerry. **THIS IS THE SOLAR SYSTEM!**"

Excitedly Cart held up the second sheet of inscribed metal. Sure enough, there was the solar-system in life—each planet neatly done, according to size, color and orbit, nine planets in all.

"I get it, Cart, these people, this guy's race, came from another star system and settled on Pluto . . ."

"Yeah . . . ?" But why Pluto—nothing here to invite life—wait. Look here, Jerry. See this? I could swear that the names are the same. See this one?

It corresponds to the first planet on one map, the second on the other. And see—it's the same with the other planets except the fifth—and here, in the second map—why the fifth is last!"

"JERRY. Good Lord, man do you know what this means? Why, according to this, Pluto once occupied the orbit now held by the Planetoid Belt! Scientists have long been in a quandary concerning those fragmentary aerolites, some *pro*, some *cons*, the *cons* practically carrying their point* This is a discovery, Jerry, and yet—gosh, it seems too immense, too impossible . . ."

"Aw, you're jumping to conclusions. Possibly when these guys came from their own solar system, they just duplicated the names of the planets of their own system. See, there's ten planets in the first map, and only nine in the second . . ."

"That may be so, but astronomers concede a possibility of an intra-Mercurian planet, you know. They've even given it a name, Vulcan, though no one has ever found it. Perhaps, at the time Pluto moved out of its orbit between Mars and Jupiter, Vulcan dropped into the sun."

"Well, if Pluto changed its orbit how d'you account for the planetoids? Sounds like a lot of hooey to me . . ."

But Cart was not listening. He was running through more of the metal sheets, laying them on the floor in sequence so as not to disturb their order. I looked on uninterested. After all, what was there in those unreadable sheets for us? How could any one read them without a key? Of course, I am

* There has been much controversy regarding the theory of the Planetoids, and at first it was believed that they might be simply fragments of an original large planet which had been torn to pieces by an explosion. If such were the case, the different parts in their orbits around the sun would all pass through the position occupied by the planet at the time of the explosion; therefore, search for new planetoids was confined to the regions wherein the orbits of Ceres and Pallas intersect, but this was abandoned when the orbits of Eros and two others were found interior to the orbit of Mars.

not a student. I have read about a dozen books in my life-time, and certainly no dry histories. Cart, on the other hand, was different.

He was the studious kind; always had his nose in books during the long monotonous treks from planet to planet, and I knew that although he usually spoke in the vernacular, on occasion, he could put a pedant to shame. Someone once told me that he had been a language-instructor in some obscure university, and I knew he was conversant with a number of languages, and one or two dead tongues of ancient peoples.

HIS linguistic aptitude had been the means of saving us in at least one scrape. There was that time on Gany-mede, among the 'plant-men. We were trapped, in one of their barred cages, and it was Cart's ability in learning a few words of their language from our guard that rescued us from their horrible flesh-eating tree-god. But that's another story.

Now, he startled me with a whoop. "Look, look, Jerry, a lexicon, a Rosetta stone!"

I did not get the reference to a Rosetta stone, but I looked at what he was pointing out. He held several sheets of inscribed metal for me. I glanced over them. Unquestionably, here was a glossary of those strange word-signs, and their meanings. For instance, besides a small animal, resembling a dog was drawn a number of symbols. Another was of a building, likewise followed by a few anaglyphs. In fact, the whole sheet and many sheets thereafter were covered with such deliniations. There were likewise illustrated verbs showing running men, sleeping men, hopping men, men eating, drinking, speaking, etc., as well as descriptive adjectives and adverbs, prepositions and interjections.

No wonder the old guy had crept to the chest in his last moments, he had, possibly, spent his entire life on this momentous work.

"Jumping Jupiter," exclaimed Cart jubilantly. "Give me a few months with this, and I'll read that manuscript for you." His last words referred to a bulky pile of metal sheets that had lain under the lexicon.

I nodded. "A nice tall order for a long rainy day. Better pile 'em together if you want to cart 'em back to the ship."

"Want to? Man alive! Don't you understand? Don't you realize what this means?"

I shuffled my feet. "Yes, I know, but it's sorta out of my line. I guess the museums back home'll go into a big rave over it."

"You said it. Let's be on our way."

I was of a mind to explore the rest of the planet. Our cursory inspection of it from above had shown us that the spheroid was only roughly oblate, and in its sides were great crater-like depressions, similar to those on earth's moon, but Cart was all for leaving right away, to carry home those precious metal sheets.

He would have liked to take the old man whom he fondly called "Last Man of Pluto" back with us, but he realized it would overtax the refrigerating units of our space-ship *Explorer* to keep him at a temperature to insure his safe transportation. The best we could do was to leave him as we found him, sealing the heavy door of the inner room of the laboratory as securely as possible against desecration by some vandal who might come here before we could return with a proper expedition. Burying him was out of the question, owing to the granite hardness of the deeply frozen ground.

At first, during the long journey

back to earth, I tried to study the Plutonian glossary with Cart, but it was hard sledding, and, as I have said, I am not a student. I could have gone mad in the two by four quarters of the *Explorer* for all the companionship I got out of Cart; he scarcely took time off to eat and sleep, but in two months he was ready to tackle the manuscript beneath the pile of word-signs. Then, I got interested, for as he translated, I found the tale opening before us grew more absorbing. In fact, I could scarcely await each day's installment.

THE opening was sufficient to whet our appetites for more and ever more revealing, as it did, just what great secrets of the past were to be laid bare to us. We found that the first two paragraphs had been written last, after the completion of the lexicon and history. Furthermore, Cart's hunch proved correct, after all, that both spatial maps were of the same star-system, namely our own solar system!

We read:

I Garo Mofa, last of my race salute Thee. And to Thou WHO ART COME AFTER, I, in the hundredth fardo of Valda*, bequeath this testament of a great race that spawned, lived and died upon this world we call Pluto.** More and more of the Cold eats its way to my heart; no longer can my little store of coals warm by bitter flesh. Yet, I am content. Soon, I go to join my beloved Dahya, and Tan Bora, my friend, who call to me out of the mists of yesteryear. My great work, begun ten

ganulf since, is at end. Weep not for my poor remains, but for that which was once a mighty world.

It be well that man know there is no beginning nor no ending . . . that what is history to-day is history to-morrow. That man is man, and Life is ever unchanging. What was yesterday can be to-morrow. Let him take warning, if it be in him.

This is the story of the downfall of the Kar!

From whence came the Kar, the race of man, none can know, and yet there are legends among our peoples that we came from afar, from another starry-system. Be that as it may.

Many were the strifes of man, even among his own. Nations rose and fell upon our world, the fifth planet in the system of Gav, the great sun-star; and when the void was conquered, so into it was carried war, like a torch, among the worlds inhabited by man's kindred. But for the nature of those creatures she spawned, Pluto would even now follow her eternal path, now filled with her broken moons, fragments of her once proud continents, circling ever in the orbit she deserted so blithely to revenge her legions.

Ere that ill-omened day Pluto was a pleasant world to behold, her cities sparkling gems upon the plain, vying with the pale light of Gav, her night-sky filled with the glow of ten moons. Larger by twice the size of Mars, her nearest neighbor, she was dwarfed only by Jupiter and Saturn. A proud world.

Once, when the sun was younger, Pluto had known an almost tropical warmth, but since the star had contracted upon itself through the ages, the planet had become inured to chill, her

* The term fardo is obscure, and may be ascribed to either century or some like delineation. Also Valda proved untranslatable, although a more lengthy study than Cart was able to give may reveal the true meanings. Cart suggests Valda comparable to anno Domini, describing some past historic event whereby the Plutonians calculated their calendar.

** To facilitate the reading of the following account Garo Mofa's name terms for the planets are disregarded, but for the curious I hereby name them as in the manuscript:

Duand—Vulcan	Canub—Luna	Soul—Uranus
Gebel—Mercury	Falva—Mars	Kulur—Neptune
Fawno—Venus	Mered—Jupiter	Tufka—Pluto
Kulka—Earth	Kurla—Saturn	

† The term ganulf denotes "year." The present Plutonian year is actually several hundred of our own years, but since this account deals with that period when Pluto occupied fifth place in the solar-system we conjecture that its year was then close to five of our years in duration. Thus, we will suppose that Garo Mofa took fifty years to complete his glossary and history.

people thriving and multiplying in their roofed cities.

Mars, like Pluto, was inhabited, and so also, Luna, earth's moon. And when Pluto dared traverse the void in her ships of space, these peoples, not too unlike the Plutonians, welcomed them with open arms, them, and their science. True, each race differed somewhat, in complexion, in eye and hair coloring, in stature, but beyond that all were identical, all had the same lusts, the same ambitions, the same desires.

THE Plutonians were, perhaps, an older race, owing to the fact that their world had cooled soonest. Also they had an arrogance which, at first, their neighbors saw fit to disregard, content to deal with them in commerce, mingling freely with each other. Ambassadors and treaties were exchanged, and a golden peace settled over the people of the three worlds of Luna, Mars and Pluto. Together they voyaged to the moons of Jupiter, exploring mist-clothed Venus, rock-bound Mercury and heat-shriveled Vulcan. And so they prospered and grew, side by side.

Pluto colonized her moons, Mars Luna and Pluto each sent expeditions to mine the moons of Jupiter of their vast mineral stores. Martians built villas upon their twin moons, hanging like little lanterns above their heads, and Luna established her first colony upon earth, a new world not long raised from the tepid swamps of its beginnings, wherein roved giant beasts, browsing upon succulent jungle growths.

But it is not befitting that man should look upon fair new land and not covet. The beast of the field desires blood. Bovine and equine ask but for grass. The flying things have need of the sweet, fresh sweep of air to fill their wings. The flowers lift their heads to the sun and worship. But man can not be sat-

isfied with these simpler things. He above all requires possessions, and possessions mean land, the desire of the soil, the lust for wide acres. It is a force that lies outside himself, just as the rude mating of the animal is instinctive. Land is man's insatiable thirst, his ever unsatisfied want.

Not that the race of Kar knew this. They believed their soul's longing was filled with the conquering of Space. They did not covet their neighbor's land, the old over-populated worlds, into whose natural stores they had each delved deeply. Nor did they want of Jupiter's moons, chillily far from the sun. No, it was the fresh young earth that they desired. Not Vulcan with its shriveled rocks, nor yet Mercury, nor mist-hidden Venus. It was a fairer land—earth.

Just when Mars and Pluto knew jealousy for Luna is difficult to say. It is true their own lands were over-populated, their plains disappeared beneath towers of stone and steel; but so gradual had the transition come, that the peoples scarcely noticed, scarcely knew of it. A man and his children and his children's children could live out their lives without knowing the sight of a living green thing. They no longer depended upon crops for their food, hides for their shoes, flax for their clothing. Artificiality ruled their lives, synthetic foods replaced the old.

What brought the Naturists into being is to be questioned. Perhaps, their precursor had dwelt upon Luna or even on earth itself, and tasted the fresh fruits, feasted eyes upon wide green plains stretching for untold miles.* Whoever or whatever it was, the seed of discontent was sown, and men commenced to demand new lands. They wanted their natural heritage of living things. They wanted freedom from the

* The Plutonian symbol μ is replaced here with mile, although unquestionably the measure of length differed somewhat.

roofed cities, they wanted warm winds in their face, they wanted new grown fruits. They wanted trees, the joy of knowing their mother earth once again. Man was crying for LAND.

AND there was earth. A fresh new land not long raised from the mists of creation, cloaked in verdant forests, abounding in fruit, berries, meat. Eden, where man could once more bask in warm sunlight.

What else but earth?

Daily, hourly, the ranks of the Naturalists grew. So strident became their demand that their rulers perforce had to yield promises. Everywhere, were they rising, demanding, insisting. Even those on Pluto's moons were demanding, their voices rising higher, ever higher.

Luna heard, and Mars. Luna grew frightened for her colonies, but Mars allied herself with Pluto. Her own ancient sea-bottoms were hidden by the great city buildings, her ice-caps had been pushed back to make room for more peoples. Thus it was that two expeditions set out for earth, one from Mars, one from Pluto. And Luna prepared to defend her rightful own.

In Space they met, three great armada, armed to the teeth. From the first, Luna's was a losing battle. Together the Martians and Plutonians drove her back, passed on to earth. Ah, how the conquerer's hearts beat at the sight of that beautiful land. But before possession must come battle. Not content with annihilating Luna's great fleet, they must needs erase her colonies from the land. And almost before they knew the enemy was upon them, the settlements were swept away, a few pitiful remnants escaping northward.

A pact between the two leaders divided earth between Mars and Pluto, Mars to the eastward, Pluto westward.

The Martians settled a land they named Lemuria, the Plutonians called theirs Atlantis, each across the world from the other, set like jewels in the middle of earth's two great oceans.

And they prospered. For a time, the system knew peace. Luna bested for the moment, lay silent, watching in ever-growing despair, the raising of new cities, the tilling of the sweet fragrant land. Truly, there should have been sufficient for all three races, yellow, black and white, but the victors jealously guarded their planet, determined to divide only among themselves, the white man of Pluto, the black man of Mars. They went so far as to track down the few yellow men of Luna that had escaped the destruction of their colonies and fled to new lands yet untouched by human hand.

Then Luna struck! Seemingly quiescent she had been building a great machine upon her surface, a machine capable of tossing huge projectiles upon earth, only 238,857 miles distant.* Overnight Lemuria was battered out of existence, and over Atlantis swept the ocean. So did Luna retaliate.

Pluto and Mars were naturally wroth. Great fleets descended upon Luna. She was given no time in which to recolonize earth; in fact, for the next twenty ganul earth was forgotten. How monstrosous became that war is told in mute witness by the condition in which one finds Luna to-day, its face pock-marked by the charges that fell upon her from Mars, for Mars, likewise, built giant projectile-throwing machines and bombarded the moon from afar, even as Luna had bombarded earth.

True, spatial bombardment was not altogether reliable. It took delicate mathematical plotting to establish the trajectory of the missiles, since not only

* Luna was not so close to earth in those days, the fall was to come later.

the orbital path but also orbital motion had to be given proper consideration, but out of a hundred shots, forty were sure to hit their mark. And each shot brought death and ruin, Lunarians died by the hundreds of thousands, their cities flashing into nothingness as the explosive-loaded mines landed. Then, to complete the ruin, Pluto perfected a device to rob Luna of her air-blanket.

THIS instrument was a force that speeded up the action of the air-molecules, so that they shot away from the globe in ever-increasing numbers, the moon's small gravitational force being insufficient to restrain their initial flight. And with their going, so died the Lunarites.

And now were Pluto and Mars in full possession of earth!

With haste large expeditions were prepared, thousands upon thousands clamored for the right to be the first to set foot upon the new planet, from Pluto and from Mars. But neither fleet were ever to reach earth. Whether the Martians planned it so, or whether it was an outright act of either the Plutonian or the Martian commanders, none can say, but, as it was to prove, neither expedition gained their objective. Meeting each other in space, one from Mars, one from Pluto, both fleets burst into fire at the sight of each other, and so heavy was the carnage that not a single ship escaped, not one man lived to give a truthful explanation of what had taken place!

And, overnight the allies were enemies. Earth was forgotten again. This was to be war—to annihilation, it being evident that the system could hold but one race.

Each planet straightway assembled its forces. Pluto, during the long years of the Lunar war, had developed a new force besides her atmosphere-dispersing

ray, a beam of such intensity it could sever a world in twain; while, beside her projectile thrower, Mars had now a heat-ray, capable of raising the temperature of a solid body to such a degree that its insides would boil over, would envelop the outside world in molten lava.

Mars struck first. A Plutonian moon was bombarded suddenly by projectiles, great steel clad shells several hundred feet long. Three of these proved sufficient to explode the body into thousands of fragments, spewing its fellows and Pluto with a shower of dust and ashes lasting for days.

Pluto lost no time in answering, and like Mars' first shot, her initial use of the knife-ray proved successful, cutting a long gash in Mars' side, three hundred miles long, and thirty wide.

There followed days in which neither planet scored a hit, for spacial warfare, as I have explained before, differs greatly from planetary warfare.

THEN, after days of futility, Mars got her range again, and three more of Pluto's moons exploded simultaneously, while the planet went unscathed. And again Pluto cut a wide swath in Mars' side. And she made use of the atmosphere-disperser. The process, however, of eliminating Mars' air-blanket was a slow one, and months would pass before its effect would be felt, possibly longer, since Mars was a larger world than Luna.

But not to be outdone Mars likewise made use of her heat-ray. Not immediately did Pluto realize what was happening to her, not knowing that it was the work of Mars when mountains never before known to eject volcanic debris commenced to spout forth streams of molten rock. No one can describe the terror of those fired mountains, of the rivers that became raging,

boiling death, of outraged nature. 'And, to add to the awfulness were the projectiles of Mars, now biting great craters out of Pluto's sides.

Cities collapsed by the hundreds, roofs fell in, and so hot grew the ground underfoot, that the people knew not where to turn. For the nonce Mars was forgotten, but when it was realized, at last, that Mars was wholly responsible for Pluto's abject condition, the crews turned back to their weapons. Again and again they gashed Mars cruelly.

And then came respite. Mars and Pluto were drifting apart on their voyage around the sun. Soon the range became too great for either planet to make a hit. Several years must pass ere the two planets come in conjunction with each other. For a while the battle was removed to Space itself, fleets from each planet attacking each other. But they were too well matched to play at that game long, neither side gaining or losing.

Thereupon began an era of comparative peace, in which both worlds entrenched themselves, preparing for still greater measures of warfare against the time when they should next meet.

Then on Pluto came forth one of her great scientists with a plan. He proposed that Pluto should not await the return of Mars to hostilities. Instead, he wanted Pluto to track Mars down!

Had the people been in their right senses, they would have laughed down such a proposal, but maddened as they were by their losses, by their hatred of Mars, they were ready to seize upon any new idea, no matter how fantastic, if it would answer their ends. Those who sought to point out the folly of such a plot were laughed at, even killed for their unpatriotism.

The plan? Nothing less than swinging Pluto out of its orbit, transposing the whole planet into a movable body,

capable of traveling through space as a free agent!

To accomplish this, meant turning Pluto into the equivalent of a ship of space, entailing the placement of great mechanisms that would fire rockets. By placing these rocket pits in two great circlets around the planet it was expected that the world would respond as easily as any rocket-flyer. And there followed frantic activity while this was being accomplished.

True, ere this was completed Mars and Pluto would meet again in space, but the people thought not of that; they were intent upon their self-imposed task, establishing the rocket pits, manufacturing the fuel, developing new lethal weapons with which to attack Mars when they descended upon her.

And the great day came when in the rocket-pits, lined with concrete against the inner heat of the planet, men awaited the signal for the first discharge that would throw Pluto out of her orbit.

At first nothing was felt, the planet apparently adamant to persuasion. Then—then came a scarcely perceptible rocking. This lasted for some time. Yet nothing seemed to change, the planets round about seemed in their usual places, all serenely unaware of what was about to transpire.

And then came the jar—such a rocking and groaning. The world seemed to spin like a top, the planets beyond cavorting wildly in the heavens. People cried out in their fright, tore their hair and their clothes in sorrow, for they thought the end was upon them.

Better that it had. But now the rocking was ceasing, the groaning of the world fading away, the sun and planets settling into their places. Not entirely, however. The sun seemed restless, moving this way and that in the sky, Jupiter was trying to turn a somersault and

Pluto's moons acted queerly, unable to make up their minds whether to follow or not.

IT was done. *Pluto had departed out of her orbit!*

Words fail to describe the series of events that followed, on Pluto's descent upon Mars, rocking, rolling, an unsteady ship at best, her moons dragging behind jerkily, uncertainly held by Pluto's gravitational forces.

Soon Mars was looming up ahead, large and swollen. Stupefied she could not act or think, and a dozen gashes appeared in her sides before she recovered the shock of surprise. Then, she too began an offensive. Ah, Pluto, you had forgotten that two can play at the same game. What difference if you be near or far? Now comes your punishment in full.

But wait. What happens to the system, to the sun, to the planets? Why does Jupiter jump so erratically? What has happened to little Vulcan? Has Venus, the cloud-wrapped one gone mad? Does Luna intend to fall upon earth? And the sun! Why does he shoot those giant streamers into the void? Is the whole system to fall in upon itself?

God of our fathers! Look! Pluto falls toward Mars. Engineers to your posts. Shoot wide your rockets. Can you save us?

The delicate balance of the system had been disturbed by Pluto's unnatural action, planets teetered in their orbits, the sun reached out long arms, as if to encompass all, and in turn all the planets were pulling at Pluto, each seeking to grasp her about the middle, shake her, disintegrate her. Man felt the Titanic battle as blood rushed to his head, sweat poured from his body.

Pluto's one thought now was to return to her orbit, to undo the awful

thing she had done, realizing that it is not meant for a planet to free itself. Somehow she managed to pull out of Mars' grip, to limp slowly, painfully back toward the place she had occupied during the millenniums. But for Mars' wrath she might have accomplished it.

But Mars would not have it so. Unaware of what was happening to the system, her atmosphere draining away from her, her only thought was retaliation for all she had suffered at Pluto's hands. With thousands of tons of explosives she sought to retard Pluto's progress, delaying the return just long enough to make the return impossible. And when, at last, Pluto managed to limp painfully into port, a third of her bulk gone, ripped out of her, she found two of Jupiter's moons directly in her path.

They had been dragged away from Jupiter's stewardship, and now were undisciplined runaways. Braking her progress as best she could Pluto sought to change her course, to avoid the twins that came upon her like avenging angels, intent upon finishing that which Mars had not completed, while, all the time, Mars pelted her with explosives.

Was there ever such a predicament?

At last Pluto bethought herself of her knife-ray. That alone could save her from head-on collision with Jupiter's moons. The rays were brought into play. They crossed and criss-crossed upon the two moons, slashing them into fragments; then with their rocket discharges the Plutonians shoved them out of the way.

But now their own moons were bearing down upon them. A terrific rocking throughout the world told that one moon had side-swiped Pluto, carrying away one entire continent before the rays could drive it away. Never was there such a holocaust. The havoc was unnameable.

PLUTO'S one thought was to get away. Her own orbit, filled with fragments of her moons and Jupiter's, was untenable and she must seek another. The way to the sun was cut off by Mars, and even were it not, she could not dare the power exerted by the sun, now in wilder rampage than ever. Every planet felt it. Mercury had dropped a dozen million miles nearer, Vulcan was gone into the seething caldron, Venus weaved in her orbit, and earth's moon, Luna, had moved closer.

The only way left for Pluto was outward, beyond Jupiter, beyond Saturn, both of which strained to grasp her. That alone saved the planet. Playing upon these delicate forces, the engineers at Pluto's helm maneuvered somehow to ride the path lying between. Of Uranus she had naught to fear, for that world was entering its apogee, on the far side of the sun, and only Neptune lay in the path.

But wait! what is worse? Annihilation by her sister worlds, or annihilation by the outer cold of space? See how the sun is retreating? See how wan and dim have grown its rays. Gods—save us—ere we die!

None seemed willing to help Pluto, her own momentum was bearing her outward, outward beyond the system, deeper and deeper into the void, away from the life-giving sun, away into the black reaches stretching trillions of miles to the nearest star.

And to make matters worse the rocket fuel was growing ever lower; they could not halt!

It was Neptune who, at last, took pity. Reaching out a long arm it steadied the battle-torn planet. By husbanding the remaining fuel cautiously, Pluto managed, with Neptune's help, to effect a landing in an orbit millions of miles beyond, hoping against hope that the new place would hold.

Yet even if the new orbit proved a haven, what of the peoples, the few remnants of that once mighty race? Could they survive? Their roofed cities were laid low, every natural resource of the world had been tossed into the battle's maw. And as soon as the superimposed heat of Mars' ray dwindled away, the planet would be caught in the iron-bound hand of cold. Already people were dying upon the surface from the freezing temperatures.

Those who had the energy dug themselves into the surface, seeking to preserve themselves by burning everything burnable, but they died as flies, the will-to-live all but gone. Their leaders were no better. It was no uncommon thing to see people lie down in their tracks, awaiting the death that already had them at the heart.

Born at the outset of the Great War, the three of us, offspring of the race of astronomers, Dahya, my loved one and Tan Bora, my friend, had been eyewitnesses to all that had befallen our world. And, because we knew death was upon us, we refused to desert the astronomical tower, the last of its kind left on Pluto. There was yet a store of chemically prepared food in the chests, we had furs and a small store of fuel.

None approached our home, uncaring what became of us. Day by day we sat by the great telescope, gazing apathetically into the giant reflector at the worlds that had disowned us. We noted the changes that had overtaken the system, mapped out the differences.

Mars lay dead, its atmosphere reduced to a pitiful remnant, her cities leveled to the ground, her sides unmercifully slashed by our rays. Luna was a gutted empty shell. Only earth remained in all her full glory. Earth, the forbidden land warmed by the beautiful sun, its night lighted by dead Luna.

THE RAPE OF THE SOLAR SYSTEM

WE had but one consolation. We knew that man with all his many faults, his false ambitions and desires, was not, after all, dead. On earth alone were these survivors of our three great races, those Lunarites who had escaped northward, little yellow people even now seeking to find the way back to their once proud estate; black Martians who had scattered over dozens of islands when their land, Lemuria, exploded under their feet; white Plutonians, who in flimsy boats had reached either shore of the great ocean, wherein Atlantis had once stood, where only a few mountain peaks remained to point out its grave.

For long hours we conjectured upon the future of these peoples, now, perforce, returned to barbarism, cut off from their kind, their science forgotten in their effort to save themselves. Would they learn again to build great cities? Would they again conquer Space? Would they again war upon each other?

Dahya liked to dream that their future would be fairer, that dwelling upon such a hospitable world, they would imbue something of its peace in their hearts. Tan Bora was more pessimistic. He could claim for them only death and destruction. I preferred the middle road, and concluded that peace and strife would ever go hand in hand.

Dahya and Tan Bora have gone. Dahya faded away like a cut flower, although I kept her wrapped in many furs. Tan Bora died, because the will to live had deserted him, as it had deserted all the cold-ridden race. I alone have lived on, for my great work, this work that is now completed, awaiting *those whom I know will come after*, seeking the answer to the enigma that is Life.

How benefiting that it should be here, on the *last world*.

Yea, let him read and be warned—if it be in him!

(continued from page 69)

performed the experiment, it had been November!

Only by degrees did the distressing facts dawn upon my dazed senses. I was in a hospital—that much was apparent; but at first I did not realize that it was not an ordinary hospital—it was a ward for the insane! Since the moment of the fateful experiment, six months had elapsed! Six months while my mind had wandered through the mazes of another dimension! At the expiration of the specified thirty minutes, no efforts of my assistants had sufficed to bring me out of the deep trance into which I had entered; nor was any subsequent medical attention of the slightest avail. I lay as if close to death, except that from time to time my lips would utter some broken gibberish about stars, galaxies, and nebulae. Hence it had been concluded that I was suffering from some rare form of dementia, and, kept alive by artificial feeding, I was taken to the insane ward. Evidently, in my enthusiasm, I had ab-

sorbed an overdose of the time-space drug!

It was with great difficulty that, upon regaining my strength, I convinced the hospital authorities that I was really sane and harmless and might be allowed my liberty. Even so, my friends persisted in believing that I had been out of my head; and no efforts on my part have yet persuaded an incredulous world that I was actually away in another dimension, exploring the far reaches of time and space. It is in order that my case may be more fully understood and the importance of my invention appreciated, that I am entrusting this record to writing. As for the time-space drug—I still retain the formula, and shall be delighted to supply it to any interested person. I have often been tempted to use it again myself; but have resisted the impulse, out of fear that uninformed witnesses might misinterpret the results and condemn me to a lunatic asylum for life.

WARLORDS *of* MARS





**BY FESTUS
PRAGNELL**

Don Hargreaves didn't want to fight the warlords of Mars, but he couldn't ignore a Princess' promise

DON HARGREAVES shook his head as he sat beside Professor Winterton. "They are like children," he said. "Always picking fights. Just look at King Usulor now. He's bristling like a game-cock."

Professor Winterton nodded, looking all around the great palace reception hall. "I don't like it at all, Don. Things are pretty upset in Mars. There might even be a war."

Hargreaves gripped Professor Winterton's arm. "Look," he whispered.

"The Princess Wimpolo is coming in." He pointed to the ornate entrance to the palace.

Accompanied by a retinue of servants, the newly arrived princess walked toward her position in the reception hall. By earthly standards she certainly wasn't beautiful. Like all Martians, she was over ten feet tall, and her body was correspondingly proportioned. She was sinuous and graceful, in spite of her size, which on Earth would have made her so heavy she

would have been unable to walk. Here she moved gracefully and easily, with a certain exotic charm notwithstanding her unlovely features.

A rather horrifying touch was the huge snake coiled about her shoulders. It was her favorite pet.

She had barely seated herself when King Usulor began shouting into his television transmitter. In nearly every home in the underground world of Mars he could be both seen and heard.

"I, Usulor, ruler of the mightiest nation in Mars,* greet you all. By the wise rule of the aristocrats, of whom I am the greatest, peace and order has been preserved in our sunless world for a hundred thousand years. And once every year I, as leader of the aristocrats of Mars, require that every lesser king shall send a token of his esteem and of his loyalty to me, his overlord. That day is the birthday of my daughter Wimpolo, she who has been chosen by the judges as the most aristocratic lady in all Mars.

"In honor of her birthday I have received beautiful presents from all the other kings. All, that is, but one. The party sent by that king is, I suppose, delayed by some untoward event; maybe a fall of stones from a cavern roof, an outburst of lava, or an attack by snakes.

* Within Mars are many nations, each with its king, its nobles, its middle classes, and its working masses. The kings themselves are graded in an exact scale, up to Usulor at the very top. This system had kept Mars rigid for a hundred thousand years. In a world where there was no day, where it was always night, where there was no summer or winter, nothing ever changed. Everything remained the same, century after century.

In all that time the only event of real importance had been the arrival of a few men from distant Earth to scratch the abandoned surface of Mars for rare metals. A few of these, among them Don Hargreaves and Professor Winterton, had found their way down into the deep tunnels where lived the inhabitants of a planet thought to be void of life. (See "Ghost of Mars" in the December, 1938 AMAZING STORIES.)—Ed.

"For his own sake I hope there is some such reason for his lapse. After a hundred thousand years of peace it would be unfortunate if I had to destroy the little kingdom of Ossalandoc. Let Ossalandoc take care. King Sommalu of Ossalandoc! I am calling you. Why has your party not arrived?"

In the sphere of vision King Sommalu appeared in answer garishly decorated. From the point of view of the few earthmen who watched there was little to choose between the two glaring, frosty-eyed giants. One was as bad as the other.

"Does the mighty Usulor need gifts from the little kingdom of Ossalandoc?" Sommalu asked sneeringly.

Don Hargreaves gasped. This was dangerous insolence.

Usulor shouted no more. His voice was cold as steel.

"So you defy me, Sommalu?" he asked.

"No," came the mocking voice. "I am benevolent. I give alms to the needy. Rouse yourself and open your bleary eyes. Your present has already arrived."

Usulor and all his court wheeled round. A party of five men were just entering the courtroom of the overlord of Mars.

AS the glittering throng looked at the small party a startled hush fell upon them. For the representatives of King Sommalu were dressed entirely in dark green. Green is the color of death, of mildew, verdigris, and decay, in the damp, sunless caves of Mars. Upon their heads were the helmets that Martians wear to protect themselves from the stones that are continually falling from cavern roofs. To wear helmets here was an insult to King Usulor, suggesting that his palace roof was unsafe. Upon the ambassador's tunic was

painted a white Martian bird, something like an owl. A Martian owl is the symbol of old age and barrenness. It meant much the same as though the cover of the huge present being wheeled in had borne the words: *For the Old Hag*.

There was a sound as of the clashing of knives. Usulor and his daughter were gnashing their huge teeth.

To the platform where Wimpolo sat among the statues, flowers and pictures that had come from the other kings of Mars the party made its way.

"Power to Usulor!" said the ambassador, formally.

"How did you get in unannounced?" Usulor demanded.

"There were no guards."

"What?" roared Usulor. A thousand soldiers were permanently stationed at his gates. What had happened to them? Was the palace undefended? He rapped out orders to an attendant. The attendant began to televise on the palace private system calling officers and officials.

Meanwhile the ambassador whipped aside the green cover. Sommalu's present to Princess Wimpolo and his token of loyalty to Usulor was revealed. The place rang with screams.

For what was revealed was a shrub growing out of a barrel. Its bright yellow fruit were deadly poison, and its leaves and flowers gave forth a vile odor. Thousands of blue bugs with a horrible habit of laying eggs under human skins and causing huge maggoty ulcers began to crawl over the floor among the guests.

Usulor leaped to his feet.

"Clear the hall! Everybody get out of the room until the poison plant and the ulcer-bugs have been destroyed. Mobilize the army! Get ready to attack Ossalandoc! Throw these men," he pointed to the ambassador and his

retinue, "into jail."

Nobles rushed out. Armed attendants advanced upon the little party from the offending kingdom. The visitors stood stolid and defiant. The ambassador pulled a small flute from his belt and placed it casually to his lips.

"Stay!" said Princess Wimpolo, to her father. "You are hasty. These men only obeyed orders. Let them go."

King Usulor considered a moment.

"As you desire," he decided. "They may go. I am just."

The ambassador put his flute away.

"Power to the Princess," he said. "You have been wise, and you have been very lucky."

Gusts of mocking laughter swept through the palace room. With the place almost empty, they sounded very loud. From the television sphere they came. It was Sommalu, roaring with laughter.

"Power to Usulor," he laughed. "Bugs to Usulor. Ha! That was funny."

"Laugh while you can, Sommalu," growled Usulor. "Tomorrow you will have no kingdom."

Sommalu's laughter faded. His voice rose to a scream. His eyes took on the fixed stare of a fanatic.

"Do not attack me, Usulor. I warn you, do not attack me. If you do it will be the end of your kingdom, the end of your overlordship, the end of the present order in Mars.

"I am prepared. Too long we independent kings of Mars have submitted to your tyranny. You have oppressed us, you and your aristocratic caste. You have kept the poor in servitude. You have admitted the earthmen to Mars, letting in terrible dangers. I say your rule must end. It *will* end.

"Where are your guards, Usulor, the guards who should be surrounding and protecting your palace? Note their

condition when you find them. As they are so will all your army be, if you attack me. Your power and your oppression are ov—"

Usulor shut off the television.

DON HARGREAVES and Professor Winterton went back to the home provided for him and other Earthlings at the back of Usulor's palace.

"What did you think of it?" he asked Professor Winterton.

"I don't like it," said the grey-haired Professor. "These Martians have lived in peace for so long that they must almost have forgotten how to fight. Their weapons must be rusting with disuse. And Sommalu sounded pretty confident. He must be well prepared."

"And we thought Mars to be a world of peace!"

"Yes. Seems we left Earth in too big a hurry, Don." *

A light glowed on a instrument panel. A gigantic Martian attendant threw a key. Sibilant Martian words whistled out of the speaker. Their speed ** beat Don, but Winterton got the meaning.

* Earthmen who went to Mars and remained too long in the Krypton-laden atmosphere became forced exiles because of a change in their blood which made return impossible. This condition is similar to the "bends" which divers get if they come up out of the water too quickly. Nitrogen is dissolved into the blood under pressure, and when the pressure is removed suddenly it is given up again, forming bubbles. The Krypton on Mars behaves in the same way. Krypton is a gaseous element (also found in Earth's atmosphere, in a minute proportion of one part in twenty million) and appears to be very similar to argon, helium, etc. Its molecules are made up of single atoms, and its atomic weight is 82.9. Krypton samples have been liquefied and even solidified. The solid melted at -169° C. and the liquid boiled at -152° C. Its critical temperature (i.e., the highest temperature at which it can be liquefied) is -62.5° C.—Ed.

** Due no doubt to the different structure of their brains from ours, Martians can talk and listen to each other at the same time. They do not speak, wait for a reply and then speak again. They go straight on with amazing rapidity, two or three or even four of them at the same time keeping up a continuous stream of sound.—Ed.

"My hat! Princess Wimpolo is asking for you, Don. She wants to see you at once in her apartment."

Don Hargreaves made his way with thumping heart to the Princess' apartment. He wondered if the summons had anything to do with the threatened war, but could not see how it fitted in. He hoped she didn't want to adopt him as a pet. Martian ladies often did this. The tiny bodies and beautiful faces of Earthlings made them in much demand for this purpose. Don thought it humiliating.

Princess Wimpolo lay languidly on a couch.

There were no windows to the apartment. Pale blue light came from the walls, and fresh air, carefully purified, through gratings in the floor. Her favorite snake was coiled around her body. She fondled it as she spoke. Upon its head was a natural searchlight which it could turn on and off by an effort of will.

Don watched the snake uneasily. He never quite trusted these enormous reptiles, with their habit of yawning with two-foot jaws and inward-curving teeth.

Beside the couch was a zekolo, a creature equally huge and fearsome from Don's point of view. Its body was covered by a huge bivalve-shell, like an oyster, and between the edges of the twin shells stuck out long octopus-like arms with pincers at the ends. Those pincers could easily have cut Don in halves.

"Power to Princess Wimpolo," said Don formally.

"You needn't salute me," said Wimpolo. "I detest being saluted. On state occasions I must put up with it, but in my own rooms— Come close to me. Look into my eyes."

Don did as he was told. Her eyes, large as they were by Earth standards, were warm and full of understanding.

"You come from Earth, where men live on the surface, and where there are many wars?"

"I do."

"I'd love to visit your world. But it is impossible. The krypton in my blood would dissolve out in bubbles and kill me if I attempted it."

"You wouldn't like my Earth," he said. "You would find the strong gravity a crushing strain. The light of the sun would be blinding to you. You would have to wear dark glasses. But the greatest strain of all would be our variable weather, the heat of our summers and the cold of our winters."

"Yet you love your world, little Earthling. You would like to be back there."

"I would. I miss the sun, the moon, the stars, the clouds, the green grass, dancing waves, cows, rabbits oh, a million things."

She looked at him strangely. "You have been told that I am very reserved and haughty, Earthling."

"Yes."

"It is only because I feel that terrible dangers are hanging over our world. I have no time for foolish revels and ceremonies. One day I shall be queen of all Mars, unless Sommalu wins. Then I shall, perhaps, choose an Earthling as my king."

"But I fear Sommalu. He has been preparing this. He has been conducting forbidden research. He has ground the poor of his country down to poverty to build up armaments. He broadcasts lying propaganda to his people, telling of the supposed oppressions of my father and the aristocrats. He is dangerous. Listen to this."

The giant Princess threw a switch. Curious throbbing music began to pour into the room from a hidden source. It had a curious effect of Don's nerves, filling him with a strange elation.

"How does that affect you?"

"It is exciting. I feel adventurous. I want to do dangerous things."

"Exactly. Its influence is still stronger upon Martians, for it is scientifically designed to match the natural vibrations of their brain-cells. That is Sommalu's broadcast. His secret science has mastered the art of controlling the feelings of men by music, vibrating their brain-cells so that they respond to the urge to do as he wishes. A little increase in the strength of those notes, and he could set his whole population howling for war."

"Can music do that?" Don gasped.

"Do not your Earth armies march to music? Our electric musical instruments have an infinitely greater range of notes, tones and overtones than your wind and string instruments on Earth. Whole populations can be enslaved by this means. I can even control the feelings of reptiles and insects."

"Another thing, too. Always we aristocrats have set ourselves to breed men who would be of placid temperament. It is a matter of the adrenal glands,* which rest on the tops of the kidneys. I have learned that Sommalu has bred large numbers of men with large adrenals."

"Last of all, he has developed some secret weapon. Somehow he can blast the intelligence from the brains of men, leaving them helpless imbeciles, scarcely able to speak. That is what happened to all my father's court guards today. They were found wan-

* What Princess Wimpelo says is perfectly true. Persons with large adrenal glands find their energy comes in spasms. They hate steady work, but love fighting. They are lazy and quarrelsome. Those with large thyroid glands and small adrenals work hard and patiently, but when danger comes they succumb to fear. The most ferocious of all, the tiger, has enormous adrenal glands. Cows, on the other hand, have small adrenals. A cow injected with hormones from adrenal glands, would attack as fiercely as a tiger.—Ed.

dering like men dazed. They did not understand when they were spoken to, seemed not to know their own names. They are as helpless as babies.

"People who were nearby say that notes were heard on a flute, and two blasts on a whistle. After the second blast the soldiers began to drop their weapons and to behave strangely."

Don Hargreaves looked puzzled. "Why do you tell me all these things?"

"Listen, little Earthling. I sent for you because I know you are a very brave man. Single-handed, you fought the mutineers in the mines on the surface.* Your adrenals are larger than any in my father's kingdom. You can fight without fear. Will you perform a dangerous mission for me?"

He stammered, embarrassed.

"I am not so brave as you think."

"But if the reward was—myself? To be king of all Mars one day?"

"You promise *that*, to me?" He was incredulous.

"I do."

Strange feelings beat in his breast. Her outsize Martian features were not beautiful, but he felt now that she was a lonely spirit, an exile among her own people. He could sympathize with that.

"I will do whatever you ask," he said.

"Promise?"

"I promise."

"Very well then. I am going into Ossalandoc, into Sommalu's country. I am going to find out what his new weapon is, how he turned those soldiers into imbeciles. I shall travel as an ordinary wealthy woman, with no com-

pany but my snake and zekolo, and you. I shall take you because I can trust you better than I can trust any Martian, and because you are brave. And also because you can slip through places where a Martian would be stopped. If I am in danger I shall send you back with a message to my father."

"But this is dangerous. It is reckless," he said.

"You promised."

"If your father knew he would blame me for not informing him."

She stood up, proudly.

"You scorn my reward!"

He looked at her. "I will come," he said.

CHAPTER II

In Sommalu's Country

THEY set out in one of the fifteen-foot transparent spherical autos of Mars, running through the green metal-lined tunnels that serve as one-way traffic lanes throughout Mars.

Wimpolo took her snake and her zekolo. There was nothing unusual about this, any more than if an Earth lady took with her a pair of lapdogs. Dangerous as they looked, they were perfectly docile unless ordered to fight. And they gave protection against the wild snakes and other monsters that swarmed in the smaller caverns. And Don himself was only another sort of lapdog.

Don was not easy in his mind about the business. The Princess was being very silly to go spying in the land of her father's enemy. Spies are very liable to come to a sticky end. Still, perhaps it was easier on Mars.

In any case, was the quarrel between lesser King Sommalu and greater King Usulor any of his business as an Earthling? Ought he not to be neutral? If Earthlings fought against Sommalu and

* In the "Ghost of Mars", December, 1938 AMAZING STORIES, Don Hargreaves put down a rebellion of the miners from Earth, who had occupied the surface of Mars unaware that far beneath them lay a Martian civilization. It was due to the ingratitude of the mine owners for this feat that Don Hargreaves descended into Mars to live with the Martians, where he felt he would be more appreciated.—Ed.

Sommalu won, it might be bad for other Earthlings besides those who went fighting. Sommalu was known to be already hostile to Earthlings.

However, he couldn't forget what Wimpolo had promised him. That one day he would be king of Mars. She seemed to have forgotten that now, sitting in the square apartment that hung from the axle of the transparent sphere, taking no notice of Don, but fondling her reptiles.

When they came at last into the open on the shore of the smooth, tideless, waveless ocean of inner Mars, the sphere jarred to a sharp halt.

"Go no further!" warned a blue-clothed official. "King Sommalu has sent an invading army into our country, and his outposts are only a little way ahead."

Wimpolo looked indignant and went on.

Soon they were stopped. Don recognized the badge of Sommalu, the four-headed snake, on the tunics of the men who surrounded them. All wore cavern helmets and carried black boxes. These black boxes produced the penetrative rays that halt the chemical processes of nerves, bringing thought and the consciousness of brains to a standstill either temporarily or for all time.

"Let me pass!" Wimpolo ordered. "I am a high-born lady."

The soldiers grinned, showing great pointed teeth.

"She's a high-born lady!"

"Ray her!"

"Cut her ears off!"

Princess Wimpolo was roughly dragged out of the sphere. Don saw her frightened face. The adventure she had sought was too real for her liking.

"Dump her with the other prisoners," ordered the leader.

Wimpolo was hustled away, the soldiers twisting her arms and laughing

at her cries. Large adrenals seemed to produce a very different kind of Martian from the amiable giants that Don had known up to now.

At sight of Don the soldiers gave a great shout.

"It's one of those little men from Earth!"

"Queer little creature!"

"Look at his little nose!"

"Look at his tiny ears!"

"How can he breathe?"

"Don't Earthlings grow any bigger than you are?"

Despite the strangling grip on his throat, Don managed to gasp out, "A little."

"It talks!" they shouted in delight.

"They tell me," one said, "that you can throw one of those things as high as you like in the air, and they never get hurt. Always land on their feet."

At once, they decided to try it. The biggest of them seized Don by one arm and swung him. Don clung on desperately. A great box on the ears from the Martian nearly knocked him out.

Slowly, so slowly, in the light gravity, he sailed up and up until the Martian soldiers were far below. Then, still in the most leisurely manner, he drifted down again.

At last he landed, luckily on his feet, let his knees bend and rolled over. He was jarred and bruised by sharp rocks but not badly hurt.

The soldiers roared with delight.

"Throw him higher! Make him spin. See if he can still land on his feet!"

Don ran for life.

"Come back, Earthling!"

"We want a lot more fun out of you yet!"

But Don was away. Each step carried him ten feet. The slow, lumbering feet of the Martians could get nowhere near him. They lost him in the darkness, swinging their searchlights

and deathrays into action too late.

Don reached a cave and sat down. Wimpolo's spying had ended, at the very beginning, in disaster. He could not fight all Sommalu's giants to free her. Neither could he go back to Usulor. The father's anger might be terrible.

For a long while he sat still, trying to think. Suddenly, from quite close, a small yellow searchlight shone full on him. Thinking himself captured, he froze with fear. Then he realized that this light was not carried by human hands. It was one of the small natural lights carried on the heads of the carnivorous snakes that lurk in the small, unexplored caverns.

Now he was hopelessly doomed. The giant reptile's elastic jaws would stretch and stretch until it swallowed him whole. The only hope was to keep absolutely still, in the faint hope that it would not be hungry.

Cold scales slithered over the rocks, brushed against his legs, slid around his body. A reptilian face rubbed against his. A long tongue licked his nose. A tiny foreleg tickled him under the chin.

He heard a rattle of a zekolo's pincers on the rocks. Hope rose. The chief business of the life of these crustaceans was to fight the snakes, whom they cut in pieces with their pincers. But the zekolo only rubbed itself against his legs, and against the snake.

At last he understood. They were Wimpolo's pets, and they had followed him, smelling out his tracks as a dog does.

DON came out of the cave and prowled around. Away from the lights it was difficult to pick his way, except when the snake turned on its natural searchlight. Prowling around, watching, he saw Wimpolo and a num-

ber of other well-born prisoners from the captured territory shut in large spheres and carried away. He wished he had a raybox, but he was unarmed. He could do nothing.

A peasant woman gave him food. The little he ate was but a mouthful to her, and he knew which of the Martian food was good for an Earth stomach and which not. Grantan, capital city of Ossalandoc, he found was about thirty miles away by Earth reckoning. That was not a long journey in the Martian conditions. Wimpolo, he reasoned, was most likely to be there. Don set out for Grantan, the snake and the zekolo following.

Nearer to Grantan it was more difficult to make his way without being seen. Lights were everywhere.

He saw Grantan, an ugly city built where the cavern roof was low and mighty pillars could protect the houses from falls of rock. The houses extended right to the roof, one solid block. A massive, brutal-looking city.

He was stopped by a soldier. "Who are you, Earthling? Where are you going?"

He began to fear that he might be thrown into the air again.

"I'm lost," he said.

"Where's your mistress?"

"She was captured in the invasion and carried away."

In the rapid, efficient Martian way, the man raised his arm and telephoned his superiors, speaking into the tiny instrument attached to his wrist.

"My officer says there should be no Earthlings in Ossalandoc," he said presently. "The King does not like them. You are to be taken to the palace."

Don was picked up by the scruff of his neck and carried to a waiting sphere. A Martian got in and the sphere began to move. The snake and the zekolo were left behind.

CHAPTER III

In Sommalu's Palace

THE sphere entered the city via a tunnel that served as a street. Inside there was nothing to be seen but signs and side tunnels. They stopped, and a Martian in a blue uniform looked in, saw Don and lifted him out by the scruff of his neck.

He was carried into a room where a number of Martian men and women were noisily enjoying themselves. Sommalu himself lay on a couch. He was a lean, pale Martian with a wild, staring look in his bleary eyes.

"Here is the Earthling from Usulor's court!" bellowed the Martian who carried Don.

"I know you, Donald Hargreaves," growled Sommalu. "I have watched you in the television and I have reports from my spies in Usulor's country. You brought Wimpolo here to spy on me. You cursed Earthlings are the only factor in the situation I have not got under control. You are the only people I am afraid of, because I do not understand you. I shall destroy every one of you, like this!"

Don found himself seized by the neck with one huge hand and around the face with the other. Sommalu began to twist and pull as one might wring the neck of a chicken.

Somebody said to Sommalu, "Let's have some fun with him first."

Pressure on Don's neck relaxed just as cartilages and blood-vessels were about to snap.

"How?" growled Sommalu.

"We saw the soldiers play with him when Wimpolo was captured. These Earthlings are remarkably agile. They can be made to do tricks."

"Is it safe to let him live?" growled Sommalu. "He was a friend of Wim-

polo's and a favorite at Usulor's court. For that alone I hate him. How do I know that the poisons of my new fighting flies will affect Earthlings with their different constitutions from ours? They might produce unknown weapons from Earth. They might cause Earth to send an invading army to conquer Mars on the plea of helping Usulor against my revolt. I do not know their possibilities, therefore the only safe way is to destroy them."

A Martian tried to pacify him.

"Nothing can stop the mighty Sommalu. The genius that raised a factory worker to be master of a mighty nation will make him master of all Mars. The secret of your fighting flies has been well kept. Already five men turned thousands of picked soldiers into helpless imbeciles in a few seconds. Princess Wimpolo is imprisoned without food. What have you to fear?"

"You are right," snapped Sommalu. "Make him do tricks."

Courtiers seized Don. Don, under the lash of whips, was made to run and jump.

Because of the light Martian gravity he could perform feats that were remarkable to the massive Martians. He could jump high over their heads, turning somersaults as he did so. To escape the lash, he did his best to amuse them. He did cartwheels, handsprings backwards over their heads. He balanced himself on one hand on a Martian's shoulder.

"Climb that wall!" ordered Sommalu, pointing.

It looked impossible, but by the aid of curtains, furniture and carvings he reached the ceiling. He swung by one hand from the grating that let the used air out of the room. He misjudged the strength of the grating. It broke away in a shower of stones and plaster.

"Put that grating back!" roared

Sommalu, furiously.

Don tried to climb, carrying the heavy grating. He could not. A Martian got a rope, tied one end around his waist and the other to the grating. Don climbed up, got into the hole and began to haul up the grating. Around him the ventilation space between two floors made a dark, dusty gap through which he might crawl on hands and knees like a rat in an Earth home.

It was the only way to get away. He dropped the grating and began to crawl.

A LONG way he went in the darkness. Behind him the shouts of Sommalu's courtiers faded away. Short of pulling down a whole section of the palace, he did not see how they could find him.

The only light came from gratings where air was admitted into or out of other rooms. There were water pipes and insulated wires around him. The ventilation spaces were a labyrinth of passages. He found a loose grating under a larder, got out, helped himself to food and darted back under the floor as a Martian maidservant came in.

"Now I really am a rat," he thought.

For hours he wandered about these inter-floor spaces, listening to chance conversations and wondering what to do. It was a very long time indeed before he got what he wanted, a clue as to where Wimpolo was held captive.

"How are the prisoners?" he heard somebody ask.

"Quite safe," said a blue-clad guard.

"And the Princess?"

"Being kept without food until she agrees to the master's orders. She is in the next room, still proud and haughty. She has not spoken since she was brought here."

Don found the room where she was, and called to her through the floor grating. She lay listlessly on a couch, look-

ing depressed and weak. At his voice she stirred and looked around.

"It is I, Don, your Earthling. I am in the space under the floor," he called.

Wedging a chair leg between the bars, she pulled up the grating and Don's dusty figure came through.

He told his story.

"Can I help you?" he asked.

"I'm starving," she said weakly. "Get me food."

"Certainly." He went back under the floor, found the larder, raided it and brought the food to her.

"That's better," she said presently.

"Being small helps you. You can get through these grating holes. I cannot."

Suddenly she screamed. The head of a huge snake showed out of the grating hole. The reptile slithered in. It was her own pet snake. Following Don by smell, and perhaps by some uncanny Martian reptilian sense, it had trailed him here. Its long thin tongue licked its mistress's face affectionately. A rattling under the floor told them that the shell-backed zekolo was here also.

Suddenly a step outside the door told them that somebody was coming in.

Don dived under the Princess's couch. He did not see where the snake got to, but it vanished. The door opened. Sommalu, in resplendent uniform, came in, looking pleased with himself.

"I heard voices," he said, looking around. "What was it?"

"I may have been talking to myself," said Wimpolo.

"So you found your tongue at last?"

His eyes fell on the fragments of food.

"What is this?" he roared. "Who has brought food here?"

He shouted at somebody outside. Two frightened guards appeared. They denied the charge, looking bewildered at the sight of the crumbs, bones and fruit skins on the floor.

"You lie!" bellowed the angry ruler, calling soldiers. "Take them away! Show them what it means to defy the mighty Sommalu!"

The terrified guards were dragged away. Sommalu folded his arms and glowered at the Martian girl.

"If you saw what will happen to them you would not be so stiff-necked, Princess. You cannot wheedle me with your charms as you wheedled those fellows, to their own misfortune." He turned again to the door. "Bring in the long-distance televiewer."

The machine was a ten-foot globe of mirror glass set upon a stand. Two blue-clad guards wheeled it in.

"Your father has sent his army against me," Sommalu said. "In a few minutes it will come within sight of my defense guard. When you see how that great force will melt away before my men you will be more ready to agree to my suggestions. Be my queen, secure me a standing among the aristocrats, and you can have again all the luxury you once knew."

"And you tell your people you are going to rid Mars of the aristocrats," she sneered.

"I am going to rule all Mars," he said. "Nothing can stop me."

He sat beside her on the couch, his arm round her waist in mock affection as she sat, rigid and defiant. A wave of his hand signaled for the televiewer to be switched on.

Now, looking into the five-foot sphere, they seemed to be looking through a hole into an enormous cavern that stretched for many miles before them. In the distance a number of huge spheres, hundreds of feet in height, were rolling forward. Above them flew many huge airships. In the foreground lay Sommalu's soldiers awaiting the attack.

"You must be mad," said Wimpolo.

"Those spheres of my father are of a metal, the atomic adhesion of which is so strong that no force, however great, can damage it. No ray can penetrate it from outside. Yet deathrays from inside are not obstructed. They will not need to fight your little force. The spheres will simply roll over them and crush them."

"We shall see," said Sommalu, laughing confidently.

Steadily the mighty army rolled and flew down upon the few helpless-looking men who awaited it. From their clothes shone a bright blue light. They were not even trying to hide.

Abruptly, there came the notes of many flutes. Don blinked in surprise as millions upon millions of tiny flies streamed into the air. Up toward the cavern roof they swarmed out of sight. A pale light, visible to the television only, followed them. Usulor's force took no notice of them, interested only in the men on the ground.

To the notes of whistles the flies flew on. Reaching Usulor airships, some were caught in the rushing wind of the ships' progress, landed upon them and sought out tiny holes, crawled in through them.

Slowly a horrible transformation came over the faces of the airmen. Eyes that had been staring intently, judging distances and aiming, became blank and stupid. Firm jaws sagged listlessly. Men rose from their seats and lurched around, wondering and questioning in their faces, while their ships crashed down to ruin and death.

Meanwhile, other flies reached the battle-spheres. In through tiny holes in the sides they crawled, air-inlets or any other hole. Men ignored them until they were bitten, then slowly all semblance of intelligence faded from their faces.

Spheres stopped, or wandered aim-

lessly. Many collided and were destroyed. Crews got out and staggered about, making uncouth noises as though the means of speech had been taken from them and they were back at the baby stage again.

Sommalu's men, with shouts of glee, jumped up and rushed at them with daggers. The bodies of the helpless soldiers of Usulor they ripped open with their daggers. Usulor's men, not understanding, stared with hanging jaws while their comrades were cut open and the knives advanced upon them.

The butchery went on. Not one of the victims tried to fight or even to hide or turn away from the blade. They stood and stared and fell. In death their eyes were full of a great wonder.

"You see," gloated Sommalu. "My fighting flies inject into men's veins a poison that destroys all memory. Those men forgot who they were fighting for and whom against. They forgot even that they were fighting at all. Now are you convinced that I must soon be master of all Mars? Will you be sensible? Or must I bring your father before you, helpless and stupid as those soldiers were before they were killed?"

Livid with rage, Wimpolo howled a Martian insult at him, not at all aristocratic, and struck him on the mouth.

Furious in his turn, he seized her wrist and began to twist. All at once she went limp.

A commotion under Sommalu's feet made him look down in surprise. Don Hargreaves was coming out of his hiding place.

CHAPTER IV

Broadcasting Station

DON HARGREAVES had been very nervous, under the couch, for fear of discovery, but now his adrenal

glands had taken charge of him. The merciless slaughter of Usulor's army and the painful wrenching of the arm of Wimpolo who, though a giant, was still a girl, roused him to fury. His adrenal glands poured their hormones into his blood. He no longer felt afraid, but was full of a cold, fighting energy.

Leaping high, he lashed out with his foot. The kick caught Sommalu full on the mouth. The force of his own kick sent Don tumbling to the floor again.

The two guards rushed at him with outstretched hands. He jumped right over their heads. Then, pivoting on his heel, jumped again and kicked one of them heavily in the back of the head before he could turn.

Again they rushed. Again he jumped over them and gave one a heavy kick on the back of the head. Small as he was to them, his kicks must have done them no good. The enormous Martians were bewildered at his speed and agility. They picked up the backless stools they had been sitting on, and advanced.

Now he knew he was trapped. He could not jump high enough to clear their arms with the added reach the stools gave them. He was forced into a corner.

"Stand back! Let me ray him!" roared Sommalu, aiming the deadly black box. His mouth was bleeding.

Something flashed through the air. Wimpolo's snake had come out of its hiding. Sommalu was tossed aside, his raybox smashed. The two guards did not stay to fight the snake: they ran out of the door and shouted for help.

Under the floor the zekolo was heaving mightily in an effort to break its way out and join the fight. Don saw a way of escape. Locking the door, he managed to get the snake to understand that the Princess must be pulled under the floor, through the enlarged hole the crustacean had made. She was a ter-

rific weight to pull through, even in the Martian gravity. The ceiling of the room underneath, already strained by the efforts of the zekolo, could not stand it. It broke. Don and Wimpolo fell in a shower of building materials, into the room below.

Don landed on a table, sending food flying in all directions. Wimpolo landed awkwardly and painfully on a Martian's head, knocking him backward. To the dim intelligence of the reptiles above it appeared that she was being attacked again. Snake and zekolo swarmed down to her defense. Two of the unfortunate palace servants were killed by the rib-crushing embrace of the snake and three had arms or legs cut off by the pincers of the zekolo before they got away. The peaceful kitchen was turned into a slaughterhouse.

Don and Wimpolo, who had fortunately recovered her senses, fled down a passage. At the end was a guard. Wimpolo whispered to the snake. So stealthily did the snake glide that it seemed to disappear. Something flashed round the distant guard's head. The snake wrapped itself round his mouth and throat, then, lifting him in its coils, banged his head sharply against the wall.

Don picked up the unconscious man's raybox as they ran by. Ahead was a room full of machinery.

"Sommalu's broadcasting plant," Wimpolo whispered. "This is a lucky break."

The captured raybox, operated at half strength, stretched guards, engineers and musicians unconscious even before they knew they were attacked. Don posted himself at the door of the studio, ready to deal with interruptions, while Wimpolo inside proceeded to broadcast according to her own ideas.

And those were curious ideas, it

seemed to Don. A series of thin, reedy notes like the scratching of slate-pencils, was all he heard. How they could have any effect on human feelings, let alone neutralize the effects of Sommalu's own broadcasts and make his dupes turn on him, Don could not understand.

He was busy, too. The interruption of the program had sent many people to inquire the cause, and while he could ray the first-comers and stretch them in sleep, those behind saw them fall and gave the alarm.

He expected an attack by a swarm of fighting flies. A cloud of millions of them, all over the broadcasting station, would keep him very busy swishing his ray about to keep them off. Especially if they put the lights out, relying on the power of the insects to see in the dark.

But what came were soldiers clad from head to foot in armor, armor exactly like that once worn by King Arthur's knights, but made of glass. He knew at once that it was a special, ray-proof glass.

Wimpolo was now broadcasting notes obviously suitable for human ears, and calling on Sommalu's subjects to rise against the tyrant. That stopped. He watched the advance of the glass-armored giants in silence. He was ready to die because he knew he would.

SUDDENLY, Don was snatched off his feet. So startled was he that he dropped the raybox. The snake had whisked him up in the air, to the top of the banks of machinery. Wimpolo was there too, riding on the shell on the back of the zekolo.

They crawled along the tops of the instrument banks. In the ceiling was a very large grating. It occurred to Don that Wimpolo and the zekolo could get through it, and that perhaps, seeing how solidly the place was built here, find hiding large enough for all of them in

the space between the two floors.

The snake went first, vanishing, in its stealthy way, out of sight. The zekolo followed, Wimpolo followed, and Don came last. The Princess was very cramped, but otherwise there was room for all. However, it would have been dangerous for her or the zekolo to move about much.

Don and the snake went on an exploring trip. A little way along they found themselves under a richly furnished bedroom. So well furnished was it that he decided it must be the bedroom of Sommalu himself. The snake seemed to smell out its enemy, who had twisted the arm of its mistress, and it heaved up the grating to glide to the top of the four-poster bed, waiting, out of sight. Don climbed up too, and hid.

Sommalu came in. A pet snake followed him. Instantly he began to work the television.

In the small sphere showed the face of an officer of the army. He looked haggard and worn.

"Our flies have turned on our own men. Some strange music made them do it. Our army is wiped out!"

"What is the situation in the city?" asked the King, in a weary voice.

"Usulor's second army is advancing rapidly. We have no force now to send against it. A revolutionary mob is advancing from our rear."

Sommalu was a tired and hopeless, but vindictive man. "Do nothing until I give the order, and then let the big rayguns wipe them all out together. At least I'll finish them, if I can't do much about Usulor. Is it quite certain that we have got his daughter in an air-tight trap under the floor?"

"Quite certain. We can see her and the shell-back in the penetrating view-ray."

"Then tell the officer in charge of the gas-plant to start pumping in the poi-

son gas. At least Usulor shall have something to remember me by."

The face faded out.

Sommalu looked round to see what his pet snake was hissing at. This creature, even larger than Wimpolo's, had spotted the other reptile on the top of the bed. The two snakes hissed at each other with a hatred equal to that of the men in charge of them.

Sommalu barked an order. His snake raced up the end of the bed to do battle. Two giant reptiles were at once locked together, each trying to crush the other in its great coils. Their movements jerked aside the curtains. Don found himself staring straight into the eyes of the amazed Sommalu.

"You!" said Sommalu, slowly.

HE reached for his raybox on the table. Don gave a great spring. On no account must the angry monarch be allowed to reach that deadly box. He landed on the table, not quickly enough to pick up the box himself but in time to kick it across the room and still avoid the giant's reaching hands.

But on the wall was a huge pair of crossed swords, a pair of daggers beneath. Sommalu drew a sword. It was heavy and curved.

"See if you can dodge this," he snarled.

Don leaped over the bed. He ducked under the table, round a chair. Sommalu, breathing heavily, realized that he stood no chance of catching the agile Earthling while the room was full of furniture. He began pushing everything against the wall with his feet, menacing Don with the sword meanwhile. The bed was too heavy for him, but he solved that problem by chopping it down with the sword.

The battling snakes crashed to the floor. Don saw that Wimpolo's snake

had glassy eyes from the pressure of the greater reptile, but its jaws, stretching incredibly, had half engulfed the head of the other.

"Now see if you can escape me," Sommalu growled.

Don managed to draw one of the two daggers out of its sheath. To him it was a fairly respectable sword. But he could not leap over Sommalu's head without being impaled on the way.

Sommalu lunged. Don slipped to one side. Sommalu tried a series of rapid stabs, but still Don was too quick for him.

Quickly changing his tactics, he slashed at Don with the edge. Don jumped, leaping over the sweeping blade. A turn of the wrist, and back came the sword, aimed at the neck. Don ducked. Then the sword swept backward and forward with all the speed the giant could muster and all the sudden swerves and changes of aim that he could invent. Don ducked and leaped. He couldn't keep this up for long without being struck.

Don tried to slip around the giant. A great coil of the struggling snakes was in his way, and he tripped over it. He saw the broadsword, point first, plunging at him to take advantage while he was off his balance. Sommalu shouted in triumph. His eyes were wide with an insane joy.

Don shut his eyes, expecting to feel the blade, but instead the blade stuck in the timber of the broken bed.

Perhaps two, perhaps three seconds Sommalu required to pull out the embedded sword, but that was enough. Don, hurling himself forward, struck. The dagger bit deep into Sommalu's vitals.

The Martian King fell with a crash. At the same time, Don, knocked aside by an instinctive flick of his free right arm, crashed into the wall unconscious.

When he came to the rebels were in charge of the palace. They soon rescued Wimpolo, once Don had told them where she was. She was unharmed. Her snake showed no pleasure at her return. In fact, it took no interest in anything. It had made a gigantic meal, swallowing whole a snake much larger than itself, and it was in great pain.

USULOR installed himself in Sommalu's palace. An autopsy on the dead King showed that he had an enormous pair of adrenal glands. They had given him an incurably fierce fighting disposition. As a result he had, by violence and treachery, risen from a lowly position to be master of a nation, using the poisonous flies he had developed.

"Unregulated glandular abnormalities always cause trouble," a Martian scientist said, gazing sadly at Don. Don felt uncomfortable. He was thinking of the unregulated glands of Earthmen, and the prophecy of a disastrous war between Earth and Mars.

King Usulor asked: "But how did my second army win so easily?"

The chief surviving general coughed.

"We have, of course, spread the usual propaganda about our invincible army, but really we cannot understand it. Seeing what happened to the first army, we took with us flocks of trained birds to eat the flies, but even so, enough flies were bound to get through to cause havoc. Or so we thought. As a matter of fact, we lost not a ship, not a sphere, not a man. We found Sommalu's entire army lying dead with no wounds, nothing to show what they died of."

"They were stung by their own flies," said Wimpolo.

"What?"

"I have a very good ear for music," explained the Princess. "When Sommalu forced me to watch the television

(Concluded on page 107)





M-m-m-m-m-m!

by MILLEN COOKE

***They were advanced creatures;
they lived in a world in Time where
such a thing as a kiss didn't exist***

IT WAS one of THOSE afternoons. The sky was a blue loveliness overhead, the birds were giving out with their sweetest, early summer was literally everywhere, and the world was definitely all right. Nothing at all was the matter with 9146, A.D. (After the Debates). The story of these Debates, of course, had not been included in the Historical Records for semantic reasons. The concrete idea of conflict had long since fled this globe, and something called the Millenium was at hand. Nobody seemed to know quite what was expected of a Millenium, but everybody had at least a hazy idea that it

was some sort of thousand-year-plan, during which everything was going to be definitely all right. Like, for instance, 9146, A.D.

They were just out for a walk, all by themselves. After apparently endless days of congratulatory parties, interspersed with a few more solemn occasions, and crowned at last by the most solemn occasion of all, at which They had been Conditionally Joined, the privilege of just going out for a walk, alone, was nothing short of the pinnacle of bliss. Every bird along the Way was singing especially for them. Every tree cast its shadow exactly where it would

furnish the most delightful relief from the benign sun that did seem to be out-doing itself just a little in an over-zealous effort to please on this memorable Sixth, Fourteen.

As They strolled happily along, They communicated with one another in the wonderful new intimacy They enjoyed.

"Like it?" He asked.

"M-m-m-m." She replied, and the slight overtone of emotion left no doubt about what She meant, although the speech pattern remained singularly abstract.

After a while He tried again.

"Lovely day, isn't it?"

"M-m-m-m-m." She replied, again.

He was beginning to wonder if He had sentenced himself to a lifetime of communication by M-m-m-m-m, when the accident happened.

IT HAPPENED very suddenly. There was absolutely no warning. None whatever. They were strolling along the aquamarine tinted section of plastiway on the east side of the main thoroughfare that ran through the park from end to end, and a split second later they were still strolling—or trying to—but the aquamarine tinted plastiway had disappeared. So had the park, as such. Everything had disappeared, in fact, except trees and birds. The birds still sang, apparently unconscious of the appalling transformation that had taken place all around them.

Instead of the familiar thoroughfare, there was a dirty looking, greyish-black Way that stretched into the distance beyond and behind where They stood. It curved, dipped, and rose again in a very disconcerting fashion, tipping to the left or right as it swerved, apparently in order to accommodate whatever manner of traffic might be tempted to risk its uncertainties.

The park was gone. Instead of neatly kept lawns and colourful flowerbeds in geometrical designs, there spread out on either side of the dingy Way a most dismal and unprepossessing wilderness. The trees were vaguely familiar, being, for the most part, of a species greatly resembling the specimens that flourished in the park. However, they were not trimmed or cared for, and He noticed with disgust that they were fairly crawling with insect life of one kind and another.

But the crowning indignity inflicted upon Them by this strange and abrupt transition, was occasioned by the complete and utter disappearance of the plastiway, the lovely, translucent foot path along which They had been strolling, only a tenth of a moment before. Instead of being supported by a jewel-like surface, scientifically designed to adjust itself imperceptibly to the weight of every footstep and prevent fatigue, their feet moved, with considerable difficulty, through a tangle of barbarous weeds, and squelched down with every step into some dark and mucky substance, noisome with the implications and exhalations of decay. Furthermore, the whole thing was well below the level of the gloomy Way.

Suppressing expressions of distaste, They clambered up to the gravelled edge of the Way to catch their breath and take in this extraordinary situation in which They found themselves. After a moment or two, the solution became glaringly apparent to Them.

"Time warp." He said, simply.

SHE did not reply. He was grateful for the omission of that incoherent "M-m-m-m," but He did wish She would contribute something in the way of comment. He was decidedly upset and uncomfortable.

"D'you mind?" He queried.

She controlled a slight shudder.

"No." She returned, "Oh, no. Not at all." Then, almost immediately and in a distinctly less assured tone, "There's nothing to worry about is there?" She concluded.

He looked up and down the primitive Way, taking in all its devious curves and nauseating dips and rises. He saw no sign of life upon it.

"No, nothing to worry about." He said. "At least, not yet."

Apparently She did not derive much comfort from that statement. Her shudder was quite perceptible, so He made haste to compensate for his obvious error.

"We walked right through it, didn't we?" He said, cheerfully, in an effort to get her mind off the possible—or impossible—dangers that might confront Them at any moment.

"Can we get back?" She asked. It was more of a wail than a clear question.

"Of course!" He exclaimed. He really meant "I hope so," and She knew it. Hurriedly, He continued:

"All we have to do is go right back down there where we came from, face in the opposite direction, and calmly walk right back into the park."

"That is," He added a bit doubtfully, "That is, if there hasn't been a variation since we came through."

She thought of the trough-like depression in which They had first been introduced into this bleak world, thought of the sticky, smelly substance that had oozed up between their toes, and She shuddered again.

"Don't shudder!" He said sharply. "I can't think when you shudder that way."

"I can't help i . ." She began.

motion They were back in the hateful trough, crouching cautiously among the tall plants, their keen eyes straining to catch the first glimpse of the roaring creature that was coming toward them along the Way. As it drew abreast of their hiding place, She said:

"It's a machine."

"Yes," He replied, "and there's a Being in it."

"And he wasn't one of the Joined." She added, acutely conscious of Him again for the first time since the park had left them. It gave Her a measure of confidence. They stood up and looked after the rapidly disappearing vehicle.

"Let's watch for another." She said.

He protested. "What about going back? If we're going to get home again without being missed, and searched for, and finally traced here and returned by the authorities, we'd better be on our way. We've fooled around here long enough already for a variation to develop that will be broad enough to land us the other side of the Millenium—or maybe the Miocene!"

She wasn't listening. She was looking down the Way in the direction from which the vehicle had come.

"Let's wait for another," She repeated. "Just one more. I didn't get a very clear picture of the Being in it. Wait."

They waited. Ten or eleven minutes later another roar developed in the distance, this time from the other direction. Instead of hiding again They stood boldly on the gravel and waited for the vehicle. They sent their thought out to meet it. In it, They discovered, was another Being, unjoined. The Being saw them, apparently, and They caught a word of speech:

"Hitch-hikin!" Then, a moment later: "Probably could use a lift."

The speech patterns themselves

A DISTANT, sputtering roar cut off all further speech, and with one

meant nothing to Them, of course. They went to a really mental level, searching for concepts.

"Oh!" She exclaimed, "The Being wants to allow us to enter the vehicle with him and accompany him to his destination. Let's!"

"What about getting back?" He reminded Her, but realized as He framed the thought that it was no use. They would go with the strange Being in the noisy vehicle. He searched again for a concept in the Being's mind, found what He wanted, and extended the right arm, fingers folded into the palm, out-thrust thumb pointing to the dusty blue sky.

THE vehicle slowed, creating as it did so another noise more horrible and nerve wracking than its ordinary clamor—a kind of screeching and squalling that did nothing to assure Him of the rational basis for this mad adventure.

The Being within the vehicle pushed open a metal door. "Hop in," he said, and They got their first really severe shock—up to that moment.

Whatever else They had thought to find in this antique country, They had not expected audible speech! It took a moment for all the implications to collect themselves and fall into the proper mental categories. Diplomatically, They used that moment to crawl into the reeking interior of the vehicle. It turned out to be much smaller inside than it had appeared to be, and there were noticeable traces of carbon-monoxide and other unpleasant compounds in the foetid air that filled the tiny upholstered cabin.

"Nice day," offered the Being.

She was busy analyzing the atmosphere of the cabin to determine whether or not it would actually support Their life without doing them some

serious harm, so it was He who searched again through the Being's fuzzy and disorganised concepts, and replied: "Yes, so it is, even though the atmosphere is considerably thickened by a mixture of dust and unsimplified gases, and has an astonishingly high pollen count for this time of year."

He thought He had done very well, indeed, so He wondered a little at the Being's response. They were not at all what a civilized person had a right to expect after a pleasant statement about the weather. After all, He had taken the annoying trouble to employ vocal speech, very carefully and precisely patterned after the Being's own. He had even pitched it in the same key and reproduced the identical inflections. Why, then, did the silly Being glance at him so quickly, and give way to a fear impulse to such an extent that the vehicle went out of control for a moment?

She was very quick. She seized the steering wheel and with a deft twist brought the vehicle out of its erratic zig-zag and set it again upon a straight and even course down the right hand side of the Way.

"Thanks," commented the Being, very drily.

Nobody uttered any more audible words for quite a while. Finally the Being said:

"Say, do you feel all right?"

"Sure," He said, again using the Being's kind of speech. "Why do you ask?"

"I was just wonderin'," said the Being, and settled down to the task of making the vehicle travel more rapidly along the perilous way—as rapidly, in fact, as it was capable of travelling.

AFTER a while She aroused Him from his gloomy speculations upon the possibilities of prolonging their life

under the existing conditions, with:

"Do you know what I've been doing?" She asked.

"Certainly," He replied, "I am fully aware that you have been combing through that poor Being's concepts and speech-patterns without shame or reserve. He is undoubtedly a savage, but have you no respect for his privacy?"

"Oh, he doesn't mind," She said. "He doesn't even know I'm doing it."

"Well, nosey, what have you found out?"

Very quickly She gave Him the result of her observations. The Being, to himself, was a "man." The vehicle in which they were being hurled along was variously labelled, with a confusion characteristic of this man, "car," "Ford," and more weakly, "automobile," although this last was a term the young man scarcely connected with this particular vehicle. It was reserved in his mind for other objective images, similar, yet subtly different and variously evaluated. The Way along which they were travelling was either "road," or "highway."

"And do you know what year we've hit?" She chuckled.

"I'm not sure I care," He returned, more than displeased with her levity in the face of a situation which, He was convinced, was growing graver by the moment.

"Silly," She said. "Just for that I won't tell you." "Do you know," She went on, "he isn't joined—his word is 'married'—and there is something odd about his concept of it. Please look and see what you can make of it."

"Better be quiet," He cautioned. "The man will hear you."

"No, he won't," She said. "He doesn't even believe in speech, let alone in hearing it. The only concept he's got connected with the word 'speech' is associated with vocal sounds. Real hearing

he calls a 'hunch,' and the certainty value of that word is practically nil. He won't hear. Go ahead and look."

He looked. It was pretty puzzling. The word "married" was connected with any number of odd ideas and phrases. Discomfort, ringing bells, an amorphous mass of white fabric, a certain pattern of queerly arranged but musical sounds, strange food, two people—and certain other ideas. . . . Hastily He withdrew his mind, confusion and consternation welling up and gratefully obliterating an unwelcome mental activity.

"Did you see it?" She inquired, knowing perfectly well that He had.

"But he looks so HUMAN!" He said, aghast.

"M-m-m-m-m," She replied.

"Why, he's nothing but a . . . an animal!" He spluttered.

"He is not!" Her thought was like an explosion. "He's nice."

"He doesn't use even half his brain!" He expostulated.

"And you, with four degrees in History!" She cried derisively. "As you very well know, eight thousand years ago—I mean, NOW—there was no known use for the other half of the brain. They simply left it empty!"

SUDDENLY in a lightning flash of calculation the whole horrible idea She had put together swept over Him. But it couldn't happen! She couldn't be allowed to go through with it. He must do something to prevent this terrible, maniacal impulse from becoming action. It was hideous to consider—but what could He do? As yet He had so little experience in dealing with this oddly illusive, fellow mind. . . . He felt helpless, stunned. The words of the Officials at the ceremony of joining chanted themselves over and over again in the midst of tempestuous emotion:

"What hath been joined together.
What had been joined together."

"Let no man put asunder," She finished for Him. "But *he* isn't putting anything asunder. I am."

"But you can't leave me!" It was His turn to wail.

"I'm not leaving," She corrected Him firmly. "I want this body we're in. After all, it was mine before you came along!"

Automatically, and almost unconsciously, She rehearsed the young man's opinion of that body, even dredging up the disgusting word-pattern the young man had applied to it—"Some chick!"

Indeed! That was too much. Only the greatest possible self-control prevented Him from bursting into audible language and terrifying the man again. Before He could formulate any speech, however, She continued, her words running into one another almost as fuzzily as the man's did:

"You can get back perfectly easily, if you don't bother to take the body along. Why, you won't even have to go back to that sticky place—the 'ditch' the man calls it. You can simply unjoin yourself and go home. Once you get back, you can report to the Officials. I'm sure they can arrange another joining for you if you'd like that. You see," She sighed, whether wistfully or dreamily He could not tell, "I don't really think I'd fit into society there . . . not any more. Remember, the Officials warned us that I had atavistic tendencies, and made the joining Conditional on that account. Now I know what they meant."

She sighed again, and this time there was no question about it. It was dreamy.

He did some fast thinking. It was, He saw very clearly, quite true that now, with this latent atavism thoroughly aroused. She would hardly be fitted

for the advanced kind of life They had been destined to lead in that remote world of parks and plastics from which They had been thrust so unexpectedly. They had been joined, after all, less than half a day. If He let her go, as she wished, and hurried back, He could still return to his old body. Since Theirs had been a tentative, or conditional joining, that body would be preserved for the traditional three day period, completely insured against the slightest deterioration. Why, it would be as good as new, and by Sky! He had taken about all he could stomach of this wild ancient world. The thought of living on, in a better world, permanently attached to an atavistic mind that would force him to remember the whole hideous incident, that would sigh and dream about it, and say 'M-m-m-m', was more than He could bear.

"All right!" He said, with great determination and much relief, "I'll go."

"You're really a dear," She said, "I knew you would."

"He'll be afraid of you, though," He said. "That man is afraid of us now. He'll never get over it."

SHE laughed, almost audibly. The atavism was gaining ground rapidly as He began to loose the connections that bound his identity to the brain and body they shared together.

"Don't worry about that," She said. "He's forgotten already I've presented him with a whole series of memories to account for me. Now he thinks he met me at a dance. It may interest you to know that in his mind, at this moment, he and I are doing something he calls 'eloping'. Right now he is planning how to get me some proper clothing. You see, I found an idea in his mind—'masquerade'—that seemed to explain everything.

Utterly horrified, He said: "It's a

pleasure to go back without you. In fact, I owe it to society to do so!" He concentrated his mental forces, and with a terrific wrench, His identity hurled itself across a segment of the time-sphere at a speed that made the racing Ford rush backward, for Him, into eight thousand years of dimly remembered and incorrectly recorded History.

She felt a sudden, sharp pain behind her eyes, and buried her face in her hands. All at once she was crying. The young man turned his head, tenderly

solicitous. The brakes squalled, and the Ford lurched to a stop in a wide spot on the gravelled shoulder.

"Don't cry, Baby," he urged, "What's the matter, Baby?"

She lifted her delicately oval face that was framed like a cherub's in soft, short golden curls, and said—in audible speech, in the young man's language, but pitched a full octave higher than his voice:

"Kiss me!"

The young man was more than willing to comply.

WARLORDS OF MARS

(Concluded from page 99)

view of the rout of Usulor's first army, I noted the cadences of the flutes and whistles used to command the flies. As a result, when I got into the broadcasting station I was able to broadcast notes that vibrated the tiny brains of the flies. I gave them feelings of intolerable suffering and of rage. In fury, the flies poured out of the holes and stung to death the nearest men. In nearly every case they were Sommalu's soldiers."

"And how did you escape the gas?"

"There was no gas. The soldiers to whom Sommalu sent the order to release the gas were dead, poisoned by their own flies."

"Ah!" said the general, with a sigh of satisfaction. "Now all that remains is the cleaning up. We must make sure that no more incipient Sommalus are growing up in this disorderly country."

"Yes," said the scientist, as they went out together, "we must institute a universal register, catalog and examine—"

That left Don and Wimpolo alone. The giantess was not looking at him. She was lying languidly on a couch, affectionately tickling the ears of her snake, which, too overfed to coil itself up, lay stretched out straight and gazed at her in mute suffering.

An odd doubt came to Don. Was the part that he, the Earthling, had played in the suppression of the revolt properly appreciated? Wimpolo had promised him that one day he would be her consort and King of all Mars. Now she seemed to have forgotten.

He decided it was best not to remind her. Otherwise, hearing that he had such ambitions, the scientists of Mars might start inquiring into the size of his adrenal glands, and perhaps remove one of the pair to make him properly docile and safe. He certainly didn't want that, for how would he have got on against Sommalu if he had been docile and peace-loving?

Shaking his head in puzzlement, Don Hargreaves went out from the presence of the heir to the throne of Mars.

THE DAY TIME STOPPED MOVING

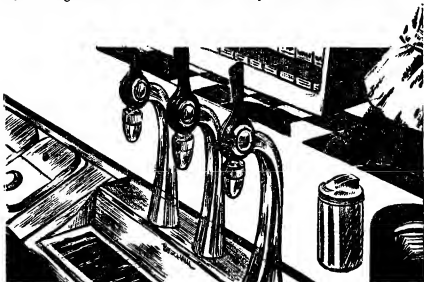
By BRADNER BUCKNER

All Dave Miller wanted to do was commit suicide in peace. He tried, but the things that happened after he'd pulled the trigger were all wrong. Like everyone standing around like statues. No St. Peter, no pearly gate, no pitchforks or halos. He might just as well have saved the bullet!

DAVE MILLER would never have done it, had he been in his right mind. The Millers were not a melancholy stock, hardly the sort of people you expect to read about in the morning paper who have taken their lives the night before. But Dave

Miller was drunk—abominably, roarily so—and the barrel of the big revolver, as he stood against the sink, made a ring of coldness against his right temple.

Dawn was beginning to stain the frosty kitchen windows. In



Dave Miller pushed with all his strength,



but the girl was as unmovable as Gibraltar.

the faint light, the letter lay a gray square against the drain-board tiles. With the melodramatic gesture of the very drunk, Miller had scrawled across the envelope:

"This is why I did it!"

He had found Helen's letter in the envelope when he staggered into their bedroom fifteen minutes ago—at a quarter after five. As had frequently happened during the past year, he'd come home from the store a little late . . . about twelve hours late, in fact. And this time Helen had done what she had long threatened to do. She had left him.

The letter was brief, containing a world of heartbreak and broken hopes.

"I don't mind having to scrimp, Dave. No woman minds that if she feels she is really helping her husband over a rough spot. When business went bad a year ago, I told you I was ready to help in any way I could. But you haven't let me. You quit fighting when things got difficult, and put in all your money and energy on liquor and horses and cards. I could stand being married to a drunkard, Dave, but not to a coward. . ."

So she was trying to show him. But Miller told himself he'd show her instead. Coward, eh? Maybe this would teach her a lesson! Hell of a lot of help she'd been! Nag at him every time he took a drink. Holler bloody murder when he put twenty-five bucks on a horse, with a chance to make five hundred.

What man wouldn't do those things?

His drug store was on the skids. Could he be blamed for drinking a little too much, if alcohol dissolved the morbid vapors of his mind?

Miller stiffened angrily, and tightened his finger on the trigger. But he had one moment of frank insight just before the hammer dropped and brought the world tumbling about his ears. It brought with it a realization that the whole thing was his fault. Helen was right—he was a coward. There was a poignant ache in his heart. She'd been as loyal as they came, he knew that.

He could have spent his nights thinking up new business tricks, instead of swilling whiskey. Could have gone out of his way to be pleasant to customers, not snap at them when he had a terrific hangover. And even Miller knew nobody ever made any money on the horses—at least, not when he needed it. But horses and whiskey and business had become tragically confused in his mind; so here he was, full of liquor and madness, with a gun to his head.

Then again anger swept his mind clean of reason, and he threw his chin up and gripped the gun tight.

"Run out on me, will she!" he muttered thickly. "Well—this'll show her!"

In the next moment the hammer fell . . . and Dave Miller had "shown her."

Miller opened his eyes with a start. As plain as black on white, he'd heard a bell ring—the most familiar sound in the world, too. It was the unmistakable tinkle of his cash register.

"Now, how in hell—" The thought began in his mind; and then he saw where he was.

The cash register was right in front of him! It was open, and on the marble slab lay a customer's five-spot. Miller's glance strayed up and around him.

He was behind the drug counter, all right. There were a man and a girl sipping cokes at the fountain, to his right; the magazine racks by the open door; the tobacco counter across from the fountain. And right before him was a customer.

Good Lord! he thought. Was all this a—a dream?

Sweat oozed out on his clammy forehead. That stuff of Herman's that he had drunk during the game—it had had a rank taste, but he wouldn't have thought anything short of marihuana could produce such hallucinations as he had just had. Wild conjectures came boiling up from the bottom of Miller's being.

How did he get behind the counter? Who was the woman he was waiting on? What—

The woman's curious stare was what jarred him completely into the present. Get rid of her! was his one thought. Then sit down behind the scenes and try to figure it all out.

His hand poised over the cash

drawer. Then he remembered he didn't know how much he was to take out of the five. Avoiding the woman's glance, he muttered:

"Let's see, now, that was—uh—how much did I say?"

The woman made no answer. Miller cleared his throat, said uncertainly:

"I beg your pardon, ma'am—did I say—seventy-five cents?"

It was just a feeler, but the woman didn't even answer to that. And it was right then that Dave Miller noticed the deep silence that brooded in the store.

Slowly his head came up and he looked straight into the woman's eyes. She returned him a cool, half-smiling glance. But her eyes neither blinked nor moved. Her features were frozen. Lips parted, teeth showing a little, the tip of her tongue was between her even white teeth as though she had started to say "this" and stopped with the syllable unspoken.

Muscles began to rise behind Miller's ears. He could feel his hair stiffen like filings drawn to a magnet. His glance struggled to the soda fountain. What he saw there shook him to the core of his being.

The girl who was drinking a coke had the glass to her lips, but apparently she wasn't sipping the liquid. Her boy friend's glass was on the counter. He had drawn on a cigarette and exhaled the gray smoke. That smoke hung in the air like a large, elongated balloon with the small

end disappearing between his lips. While Miller stared, the smoke did not stir in the slightest.

There was something unholy, something supernatural, about this scene!

With apprehension rippling down his spine, Dave Miller reached across the cash register and touched the woman on the cheek. The flesh was warm, but as hard as flint. Tentatively, the young druggist pushed harder; finally, shoved with all his might. For all the result, the woman might have been a two-ton bronze statue. She neither budged nor changed expression.

Panic seized Miller. His voice hit a high hysterical tenor as he called to his soda-jerker.

"Pete! *Pete!*" he shouted. "What in God's name is wrong here!"

The blond youngster, with a towel wadded in a glass, did not stir. Miller rushed from the back of the store, seized the boy by the shoulders, tried to shake him. But Pete was rooted to the spot.

Miller knew, now, that what was wrong was something greater than a hallucination or a hangover. He was in some kind of trap. His first thought was to rush home and see if Helen was there. There was a great sense of relief when he thought of her. Helen, with her grave blue eyes and understanding manner, would listen to him and know what was the matter.

He left the haunted drug

store at a run, darted around the corner and up the street to his car. But, though he had not locked the car, the door resisted his twisting grasp. Shaking, pounding, swearing, Miller wrestled with each of the doors.

Abruptly he stiffened, as a horrible thought leaped into his being. His gaze left the car and wandered up the street. Past the intersection, past the one beyond that, on up the thoroughfare until the gray haze of the city dimmed everything. And as far as Dave Miller could see, there was no trace of motion.

Cars were poised in the street, some passing other machines, some turning corners. A street car stood at a safety zone; a man who had leaped from the bottom step hung in space a foot above the pavement. Pedestrians paused with one foot up. A bird hovered above a telephone pole, its wings glued to the blue vault of the sky.

With a choked sound, Miller began to run. He did not slacken his pace for fifteen minutes, until around him were the familiar, reassuring trees and shrub-bordered houses of his own street. But yet how strange to him!

The season was autumn, and the air filled with brown and golden leaves that tossed on a frozen wind. Miller ran by two boys lying on a lawn, petrified into a modern counterpart of the sculptor's "The Wrestlers." The sweetish tang of burning leaves brought a thrill of terror to him;

for, looking down an alley from whence the smoke drifted, he saw a man tending a fire whose leaping flames were red tongues that did not move.

Sobbing with relief, the young druggist darted up his own walk. He tried the front door, found it locked, and jammed a thumb against the doorbell. But of course the little metal button was as immovable as a mountain. So in the end, after convincing himself that the key could not be inserted into the lock, he sprang toward the back.

The screen door was not latched, but it might as well have been the steel door of a bank vault. Miller began to pound on it, shouting:

"Helen! Helen, are you in there? My God, dear, there's something wrong! You've got to—"

The silence that flowed in again when his voice choked off was the dead stillness of the tomb. He could hear his voice rustling through the empty rooms, and at last it came back to him like a taunt: "*Helen! Helen!*"

CHAPTER II

Time Stands Still

FOR Dave Miller, the world was now a planet of death on which he alone lived and moved and spoke. Staggered, utterly beaten, he made no attempt to break into his home. But he did stumble around to the kitch-

en window and try to peer in, anxious to see if there was a body on the floor. The room was in semi-darkness, however, and his straining eyes made out nothing.

He returned to the front of the house, shambling like a somnambulist. Seated on the porch steps, head in hands, he slipped into a hell of regrets. He knew now that his suicide had been no hallucination. He was dead, all right; and this must be hell or purgatory.

Bitterly he cursed his drinking, that had led him to such a mad thing as suicide. Suicide! He—Dave Miller—a coward who had taken his own life! Miller's whole being crawled with revulsion. If he just had the last year to live over again, he thought fervently.

And yet, through it all, some inner strain kept trying to tell him he was not dead. This was his own world, all right, and essentially unchanged. What had happened to it was beyond the pale of mere guesswork. But this one thing began to be clear: This was a world in which change or motion of any kind was a foreigner.

Fire would not burn and smoke did not rise. Doors would not open, liquids were solid. Miller's stubbing toe could not move a pebble, and a blade of grass easily supported his weight without bending. In other words, Miller began to understand, change had been stopped as surely as if

a master hand had put a finger on the world's balance wheel.

Miller's ramblings were terminated by the consciousness that he had an acute headache. His mouth tasted, as Herman used to say after a big night, as if an army had camped in it. Coffee and a bromo were what he needed.

But it was a great awakening to him when he found a restaurant and learned that he could neither drink the coffee nor get the lid off the bromo bottle. Fragrant coffee-steam hung over the glass percolater, but even this steam was as a brick wall to his probing touch. Miller started gloomily to thread his way through the waiters in back of the counter again.

Moments later he stood in the street and there were tears swimming in his eyes.

"Helen!" His voice was a pleading whisper. "Helen, honey, where are you?"

There was no answer but the pitiful palpitation of utter silence. And then, there was movement at Dave Miller's right!

Something shot from between the parked cars and crashed against him; something brown and hairy and soft. It knocked him down. Before he could get his breath, a red, wet tongue was licking his face and hands, and he was looking up into the face of a police dog!

Frantic with joy at seeing another in this city of death, the dog would scarcely let Miller rise. It stood up to plant big

paws on his shoulders and try to lick his face. Miller laughed out loud, a laugh with a throaty catch in it.

"Where'd you come from, boy?" he asked. "Won't they talk to you, either? What's your name, boy?"

There was a heavy, brass-studded collar about the animal's neck, and Dave Miller read on its little nameplate: "Major."

"Well, Major, at least we've got company now," was Miller's sigh of relief.

For a long time he was too busy with the dog to bother about the sobbing noises. Apparently the dog failed to hear them, for he gave no sign. Miller scratched him behind the ear.

"What shall we do now, Major? Walk? Maybe your nose can smell out another friend for us."

They had gone hardly two blocks when it came to him that there was a more useful way of spending their time. The library! Half convinced that the whole trouble stemmed from his suicide shot in the head—which was conspicuously absent now—he decided that a perusal of the surgery books in the public library might yield something he could use.

That way they bent their steps, and were soon mounting the broad cement stairs of the building. As they went beneath the brass turnstile, the librarian caught Miller's attention with a smiling glance. He smiled back.

"I'm trying to find something

on brain surgery," he explained. "I—"

With a shock, then, he realized he had been talking to himself.

In the next instant, Dave Miller whirled. A voice from the bookcases chuckled:

"If you find anything, I wish you'd let me know. I'm stumped myself!"

From a corner of the room came an elderly, half-bald man with tangled gray brows and a rueful smile. A pencil was balanced over his ear, and a notebook was clutched in his hand.

"You, too!" he said. "I had hoped I was the only one—"

Miller went forward hurriedly to grip his hand.

"I'm afraid I'm not so unselfish," he admitted. "I've been hoping for two hours that I'd run into some other poor soul."

"Quite understandable," the stranger murmured sympathetically. "But in my case it is different. You see—I am responsible for this whole tragic business!"

"You!" Dave Miller gulped the word. "I—I thought—"

The man wagged his head, staring at his note pad, which was littered with jumbled calculations. Miller had a chance to study him. He was tall, heavily built, with wide, sturdy shoulders despite his sixty years. Oddly, he wore a gray-green smock. His eyes, narrowed and intent, looked gimlet-sharp beneath those toothbrush brows of his, as he stared at the pad.

"There's the trouble, right

there," he muttered. "I provided only three stages of amplification, whereas four would have been barely enough. No wonder the phase didn't carry through!"

"I guess I don't follow you," Miller faltered. "You mean—something you did—"

"I should think it was something I did!" The baldish stranger scratched his head with the tip of his pencil. "I'm John Erickson—you know, the Wanamaker Institute."

Miller said: "Oh!" in an understanding voice. Erickson was head of Wanamaker Institute, first laboratory of them all when it came to exploding atoms and blazing trails into the wildernesses of science.

Erickson's piercing eyes were suddenly boring into the younger man.

"You've been sick, haven't you?" he demanded.

"Well—no—not really sick." The druggist colored. "I'll have to admit to being drunk a few hours ago, though."

"Drunk—" Erickson stuck his tongue in his cheek, shook his head, scowled. "No, that would hardly do it. There must have been something else. The impulsor isn't *that* powerful. I can understand about the dog, poor fellow. He must have been run over, and I caught him just at the instant of passing from life to death."

"Oh!" Dave Miller lifted his head, knowing now what Erickson was driving at. "Well, I may

as well be frank. I'm—I committed suicide. That's how drunk I was. There hasn't been a suicide in the Miller family in centuries. It took a skinful of liquor to set the precedent."

Erickson nodded wisely. "Perhaps we will find the precedent hasn't really been set! But no matter—" His lifted hand stopped Miller's eager, wondering exclamation. "The point is, young man, we three are in a tough spot, and it's up to us to get out of it. And not only we, but heaven knows how many others the world over!"

"Would you—maybe you can explain to my lay mind what's happened," Miller suggested.

"Of course. Forgive me. You see, Mr.—"

"Miller. Dave Miller."

"Dave it is. I have a feeling we're going to be pretty well acquainted before this is over. You see, Dave, I'm a nut on so-called 'time theories.' I've seen time compared to everything from an entity to a long, pink worm. But I disagree with them all, because they postulate the idea that time is constantly being manufactured. Such reasoning is fantastic!

"Time exists. Not as an ever-growing chain of links, because such a chain would have to have a tail end, if it has a front end; and who can imagine the period when time did not exist? So I think time is like a circular train-track. Unending. We who live and die merely travel around on it. The future exists simul-

taneously with the past, for one instant when they meet."

Miller's brain was humming. Erickson shot the words at him staccato-fashion, as if they were things known from Great Primer days. The young druggist scratched his head.

"You've got me licked," he admitted. "I'm a stranger here, myself."

"Naturally you can't be expected to understand things I've been all my life puzzling about. Simplest way I can explain it is that we are on a train following this immense circular railway.

"When the train reaches the point where it started, it is about to plunge into the past; but this is impossible, because the point where it started is simply the caboose of the train! And that point is always ahead—and behind—the time-train.

"Now, my idea was that with the proper stimulus a man could be thrust across the diameter of this circular railway to a point in his past. Because of the nature of time, he could neither go ahead of the train to meet the future nor could he stand still and let the caboose catch up with him. But—he could detour across the circle and land farther back on the train! And that, my dear Dave, is what you and I and Major have done—almost."

"Almost?" Miller said hoarsely.

Erickson pursed his lips. "We are somewhere partway across the space between present and

past. We are living in an instant that can move neither forward nor back. You and I, Dave, and Major—and the Lord knows how many others the world over—have been thrust by my time impulsor onto a timeless beach of eternity. We have been caught in time's backwash. Castaways, you might say."

An objection clamored for attention in Miller's mind.

"But if this is so, where are the rest of them? Where is my wife?"

"They are right here," Erickson explained. "No doubt you could see your wife if you could find her. But we see them as statues, because, for us, time no longer exists. But there was something I did not count on. I did not know that it would be possible to live in one small instant of time, as we are doing. And I did not know that only those who are hovering between life and death can deviate from the normal process of time!"

"You mean—we're dead!" Miller's voice was a bitter monotone.

"Obviously not. We're talking and moving, aren't we? But—we are on the fence. When I gave my impulsor the jolt of high power, it went wrong and I think something must have happened to me. At the same instant, you had shot yourself.

"Perhaps, Dave, you are dying. The only way for us to find out is to try to get the machine working and topple ourselves one way or the other. If we fall back,

we will all live. If we fall into the present—we may die."

"Either way, it's better than this!" Miller said fervently.

"I came to the library here, hoping to find out the things I must know. My own books are locked in my study. And these—they might be cemented in their places, for all their use to me. I suppose we might as well go back to the lab."

Miller nodded, murmuring: "Maybe you'll get an idea when you look at the machine again."

"Let's hope so," said Erickson grimly. "God knows I've failed so far!"

CHAPTER III

Splendid Sacrifice

IT WAS a solid hour's walk out to West Wilshire, where the laboratory was. The immense bronze and glass doors of Wanamaker Institute were closed, and so barred to the two men. But Erickson led the way down the side.

"We can get in a service door. Then we climb through transoms and ventilators until we get to my lab."

Major frisked along beside them. He was enjoying the action and the companionship. It was less of an adventure to Miller, who knew death might be ahead for the three of them.

Two workmen were moving a heavy cabinet in the side service door. To get in, they climbed up the back of the rear work-

man, walked across the cabinet, and scaled down the front of the leading man. They went up the stairs to the fifteenth floor. Here they crawled through a transom into the wing marked.

"Experimental. Enter Only By Appointment."

Major was helped through it, then they were crawling along the dark metal tunnel of an air-conditioning ventilator. It was small, and took some wriggling.

In the next room, they were confronted by a stern receptionist on whose desk was a little brass sign, reading:

"Have you an appointment?"

Miller had had his share of experience with receptionists' ways, in his days as a pharmaceutical salesman. He took the greatest pleasure now in lighting his cigarette from a match struck on the girl's nose. Then he blew the smoke in her face and hastened to crawl through the final transom.

John Erickson's laboratory was well lighted by a glass-brick wall and a huge skylight. The sun's rays glinted on the time impulsor.* The scientist explained the impulsor in concise terms. When he had finished, Dave Mil-

ler knew just as little as before, and the outfit still resembled three transformers in a line, of the type seen on power-poles, connected to a great bronze globe hanging from the ceiling.

"There's the monster that put us in this plight," Erickson grunted. "Too strong to be legal, too weak to do the job right. Take a good look!"

With his hands jammed in his pockets, he frowned at the complex machinery. Miller stared a few moments; then transferred his interests to other things in the room. He was immediately struck by the resemblance of a transformer in a far corner to the ones linked up with the impulsor.

"What's that?" he asked quickly. "Looks the same as the ones you used over there."

"It is."

"But— Didn't you say all you needed was another stage of power?"

"That's right."

"Maybe I'm crazy!" Miller stared from impulsor to transformer and back again. "Why don't you use it, then?"

"Using what for the connection?" Erickson's eyes gently mocked him.

"Wire, of course!"

The scientist jerked a thumb at a small bale of heavy copper wire.

"Bring it over and we'll try it."

Miller was halfway to it when he brought up short. Then a

*Obviously this electric time impulsor is a machine in the nature of an atomic integrator. It "broadcasts" great waves of electrons which align all atomic objects in rigid suspension.

That is to say, atomic structures are literally "frozen." Living bodies are similarly affected. It is a widely held belief on the part of many eminent scientists that all matter, broken down into its elementary atomic composition, is electrical in structure.

That being so, there is no reason to suppose why Professor Erickson may not have discovered a time impulsor which, broadcasting electronic impulses, "froze" everything within its range.—Ed.

sheepish grin spread over his features.

"I get it," he chuckled. "That bale of wire might be the Empire State Building, as far as we're concerned. Forgive my stupidity."

Erickson suddenly became serious.

"I'd like to be optimistic, Dave," he muttered, "but in all fairness to you I must tell you I see no way out of this. The machine is, of course, still working, and with that extra stage of power, the uncertainty would be over. But where, in this world of immovable things, will we find a piece of wire twenty-five feet long?"

There was a warm, moist sensation against Miller's hand, and when he looked down Major stared up at him commiseratingly. Miller scratched him behind the ear, and the dog closed his eyes, reassured and happy. The young druggist sighed, wishing there were some giant hand to scratch him behind the ear and smooth his troubles over.

"And if we don't get out," he said soberly, "we'll starve, I suppose."

"No, I don't think it will be that quick. I haven't felt any hunger. I don't expect to. After all, our bodies are still living in one instant of time, and a man can't work up a healthy appetite in one second. Of course, this elastic-second business precludes the possibility of disease.

"Our bodies must go on un-

changed. The only hope I see is —when we are on the verge of madness, suicide. That means jumping off a bridge, I suppose. Poison, guns, knives—all the usual wherewithal—are denied to us."

Black despair closed down on Dave Miller. He thrust it back, forcing a crooked grin.

"Let's make a bargain," he offered. "When we finish fooling around with this apparatus, we split up. We'll only be at each other's throat if we stick together. I'll be blaming you for my plight, and I don't want to. It's my fault as much as yours. How about it?"

John Erickson gripped his hand. "You're all right, Dave. Let me give you some advice. If ever you do get back to the present . . . keep away from liquor. Liquor and the Irish never did mix. You'll have that store on its feet again in no time."

"Thanks!" Miller said fervently. "And I think I can promise that nothing less than a whiskey antidote for snake bite will ever make me bend an elbow again!"

For the next couple of hours, despondency reigned in the laboratory. But it was soon to be deposed again by hope.

Despite all of Erickson's scientific training, it was Dave Miller himself who grasped the down-to-earth idea that started them hoping again. He was walking about the lab, jingling keys in his pocket, when suddenly he

stopped short. He jerked the ring of keys into his hand.

"Erickson!" he gasped. "We've been blind. Look at this!"

The scientist looked; but he remained puzzled.

"Well—?" he asked skeptically.

"There's our wire!" Dave Miller exclaimed. "You've got keys; I've got keys. We've got coins, knives, wristwatches. Why can't we lay them all end to end—"

Erickson's features looked as if he had been electrically shocked.

"You've hit it!" he cried. "If we've got enough!"

With one accord, they began emptying their pockets, tearing off wristwatches, searching for pencils. The finds made a little heap in the middle of the floor. Erickson let his long fingers claw through thinning hair.

"God give us enough! We'll only need the one wire. The thing is plugged in already and only the positive pole has to be connected to the globe. Come on!"

Scooping up the assortment of metal articles, they rushed across the room. With his pocket-knife, Dave Miller began breaking up the metal wrist-watch straps, opening the links out so that they could be laid end-to-end for the greatest possible length. They patiently broke the watches to pieces, and of the junk they garnered made a ragged foot and a half of "wire". Their coins stretched the line still further.

They had ten feet covered before the stuff was half used up. Their metal pencils, taken apart, gave them a good two feet. Key chains helped generously. With eighteen feet covered, their progress began to slow down.

Perspiration poured down Miller's face. Desperately, he tore off his lodge ring and cut it in two to pound it flat. From garters and suspenders they won a few inches more. And then—they stopped—feet from their goal.

Miller groaned. He tossed his pocket-knife in his hand.

"We can get a foot out of this," he estimated. "But that still leaves us 'way short."

Abruptly, Erickson snapped his fingers.

"Shoes!" he gasped. "They're full of nails. Get to work with that knife, Dave. We'll cut out every one of 'em!"

In ten minutes, the shoes were reduced to ragged piles of tattered leather. Erickson's deft fingers painstakingly placed the nails, one by one, in the line. The distance left to cover was less than six inches!

He lined up the last few nails. Then both men were sinking back on their heels, as they saw there was a gap of three inches to cover!

"Beaten!" Erickson ground out. "By three inches! Three inches from the present . . . and yet it might as well be a million miles!"

Miller's body felt as though it were in a vise. His muscles

ached with strain. So taut were his nerves that he leaped as though stung when Major nuzzled a cool nose into his hand again. Automatically, he began to stroke the dog's neck.

"Well, that licks us," he muttered. "There isn't another piece of movable metal in the world."

Major kept whimpering and pushing against him. Annoyed, the druggist shoved him away.

"Go 'way," he muttered. "I don't feel like—"

Suddenly then his eyes widened, as his touch encountered warm metal. He whirled.

"There it is!" he yelled. "The last link. *The nameplate on Major's collar!*"

In a flash, he had torn the little rectangular brass plate from the dog collar. Erickson took it from his grasp. Sweat stood shiny on his skin. He held the bit of metal over the gap between wire and pole.

"This is it!" he smiled brittlely. "We're on our way, Dave. Where, I don't know. To death, or back to life. But—we're going!"

The metal clinked into place. Live, writhing power leaped through the wire, snarling across partial breaks. The transformers began to hum. The humming grew louder. Singing softly, the bronze globe over their heads glowed green. Dave Miller felt a curious lightness. There was a snap in his brain, and Erickson, Major and the laboratory faded from his senses.

Then came an interval when

the only sound was the soft sobbing he had been hearing as if in a dream. That, and blackness that enfolded him like soft velvet. Then Miller was opening his eyes, to see the familiar walls of his own kitchen around him!

Someone cried out.

"Dave! Oh, Dave, dear!"

It was Helen's voice, and it was Helen who cradled his head in her lap and bent her face close to his.

"Oh, thank God that you're alive—!"

"Helen!" Miller murmured. "What—are—you—doing here?"

"I couldn't go through with it. I—I just couldn't leave you. I came back and—and I heard the shot and ran in. The doctor should be here. I called him five minutes ago."

"Five minutes . . . How long has it been since I shot myself?"

"Oh, just six or seven minutes. I called the doctor right away."

Miller took a deep breath. Then it *must* have been a dream. All that—to happen in a few minutes— It wasn't possible!

"How—how could I have botched the job" he muttered. "I wasn't drunk enough to miss myself completely."

Helen looked at the huge revolver lying in the sink.

"Oh, that old forty-five of Grandfather's! It hasn't been loaded since the Civil War. I guess the powder got damp or something. It just sort of sputtered instead of exploding prop-

erly. Dave, promise me something! You won't ever do anything like this again, if I promise not to nag you?"

Dave Miller closed his eyes. "There won't be any need to nag, Helen. Some people take a lot of teaching, but I've had my lesson. I've got ideas about the store which I'd been too lazy to try out. You know, I feel more like fighting right now than I have for years! We'll lick 'em, won't we, honey?"

Helen buried her face in the hollow of his shoulder and cried softly. Her words were too muffled to be intelligible. But Dave Miller understood what she meant.

He had thought the whole thing a dream—John Erickson, the "time impulsor" and Major. But that night he read an item in the *Evening Courier* that was to keep him thinking for many days.

POLICE INVESTIGATE DEATH OF SCIENTIST HERE IN LABORATORY

John M. Erickson, director of the Wanamaker Institute, died at his work last night. Erickson was a beloved and valuable figure in the world of science, famous for his recently publicized "time lapse" theory.

Two strange circumstances surrounded his death. One was the presence of a German shepherd dog in the laboratory, its head crushed as if with a sledgehammer. The other was a chain of small metal objects stretching from one corner of the room to the other, as if intended to take the place of wire in a circuit.

Police, however, discount this idea, as there was a roll of wire only a few feet from the body.

THE END

THE CHILDREN

Continued from page 64

bigger children through the ship, through the hatch, and into the gentle dusk outside.

Laughing, jostling, the children ran toward the forest which was home.

Among them now were two larger and older than the others. But time and cosmium would take care of the differences. Soon all the children would be the same...

The Sword and the Atopen

By TAYLOR H. GREENFIELD

The conversion of light into electricity by spectrum is an interesting possibility. The idea of using foreign proteins on the human system to repel enemies, is also interesting. Do you get it? We didn't either until we read the story. Read the yarn and you'll get it too.

ALTHOUGH Divine intervention in human affairs passed into the realm of the mythical toward the end of the twentieth or at the dawn of the twenty-first century, one is almost inclined to give thanks to the Supernatural for the marvelous efficacy of Dr. Rutledge's discovery and stratagem which so recently freed us from the Oriental menace.

A year ago only the Mississippi and the most severe winter in many generations was staying the complete invasion of the United States. In an unbelievably secret manner our enemies had for five decades been developing a scientific offensive

against which our laboratories could not in a short interval protect us. The vast and fundamental discoveries made during the past hundred years by the Orientals (and now the heritage of the whole world) can only be compared to the Industrial Revolution of the nineteenth century. Without warning, through the discovery of the cause of gravitation, the Mongols practically lifted their Nangai metal transports (which were built of a material combining the lightness of aluminum with the strength and hardness of steel) out of the sea; and in five days skimmed across the surface of the Pacific. The whole West lay at their



mercy, though we know with what gallantry their forces were held in check from summer until winter, when the enemy had reached the Mississippi.

Of course, one of the surprises which the Orientals had not counted on was the providential inspiration of Dr. Mernick of the Hopkins, who devised the now famous Mernickian transformer by which light from the sun, received through a series of grates, is stepped from the wavelengths of light into those of electricity. This gave us a sudden limitless source of power on which the enemy had not counted. It virtually lifted our forces off the ground and made them almost the equal of an enemy who had succeeded in neutralizing the gravitational drag.

The final and most disastrous card our subtle enemies played was dealt on the prairies in Nebraska. They themselves were afraid of their weapon and wanted plenty of space to try it in. I was personally present at its debut, being at the time in General Sanford's stationary observing helicopter which, through the agency of the power supplied by a Mernickian transformer, hung motionless as a bee fifteen thousand feet in the air. Only the treble hum of the air turbine could be heard faintly through the transparent walls of the observatory constructed of the annealed cersite, which has taken the place of the unsatisfactory glass used by our forefathers. The toughness and tensile

strength of this element, comparable to the best chrome steels, combined with its crystal clarity, made an ideal warfare observation unit. It was practically invisible and likewise quite bullet proof. The great strength of the material in our machine, and the rapidity with which we could rise and fall, indeed made us difficult prey. In addition to this we were hanging behind the great electric field that the Radio Defensive Corps had spread like a screen before our forces, greatly to the embarrassment of the enemy in the use of his anti-gravitational machines.

As we stood at our posts, we saw the great degravitated bombs hurtled against our lines suddenly come into contact with the fan-like electric field, somersault a few times and fall. At the edge of the electric screen the ground was excavated to an enormous depth by the bursting of these intercepted degravitated bombs, most of which had been projected from stationary batteries three or four hundred miles behind the enemy lines. The local batteries bombarding with the old fashioned Sangsi steel shell were still effective. On the whole, however, from our own observation of the local front and from the television reports we were constantly receiving, we judged that the American and Allied Caucasian forces were more than holding their own.

General Sanford, the Chief of the Signal Corps, who stood by

my side, grasped my arm, and pointed to the west. Everyone crowded to our side in excitement. Before we could gasp our amazement, the incandescent spot which our Chief had mutely indicated on the distant horizon, zoomed in a blazing arc across our zenith and plunged into the terrain of the English forces which were occupying the little town of Ogallala about six miles to our south. We held our breath. What next?

Only a faint throbbing seemed to pulse in the air above the spot where the missile sank. I was about to pronounce the diagnosis of "a dud," when someone cried, "My God, General, they've turned hell loose this time!" The whole atmosphere for a quarter of a mile radius about the fatal bomb quivered as over a heated griddle. Even as we remarked this, the area began to glow cherry red. A deafening thunder assaulted our ears when to our horror the earth on which had stood the now burning town of Ogallala, rose a gigantic incandescent ball and shot like a meteor into the heavens. Our car was a feather tossed in the ensuing hurricane, but even while we bobbed back and forth there was an ear-splitting explosion as the land that was once an American village burst into a blinding blue flare of hydrogen flame twenty-five miles above us.

The swaying of the car gradually subsided in the tortured atmosphere, and a gentle rain began to fall. Ogallala had been

chemically "stepped down" into the most primitive element, combined with the oxygen above and was condensing back to earth again as a few globules of H_2O . That day was a sort of crisis; the enemy had discovered and turned upon us the power of atomic degeneration! And I, as assistant chief chemist of the American Army, felt my heart become heavy within me as I soared back to the Central Laboratory.

Even as I watched the advent of the electronic detonator two days previously the inspiration had come to me. What had happened to the doomed Nebraskan town had been so obvious. Through some unexplained agency discovered by the Orientals, the electronic restraint of the normally stable elements had been removed. In a brief time Ogallala had degenerated through all the steps of the periodic table until it became hydrogen, at which point, owing to the terrific air current and incandescent heat, it had recombined with the oxygen of the air as simple molecules of water.

I thought I had a clue as to how it had been accomplished. The Central Chemical Laboratory was the focus of feverish excitement. The air was tense with the expectancy of tremendous things. Every scientist there felt that we were on the verge of discovering the principle of the Mongol's new weapon. "Give us time!" "Time" was

the plea we sent daily to the Defense Headquarters. "Only six weeks more, only a month," we begged, "and then we'll make a boomerang out of the enemy's invention." Anderson, Mahaffey, Dr. Spritz—all the great physicists and chemists of the present age—labored at my side endeavoring to trick Nature into giving us that saving secret.

The television 'phone called my name. I immediately hurried to the booth and saw General Loomis, the Commander-in-Chief of the American and Caucasian Armies, standing in his helicopter headquarters. He seemed haggard and worn. "How much longer, Johnson?" he asked. "The enemy has pretty well eaten out the country and with the advent of winter and lack of food, are bending all their efforts to crush us. Besides, we cannot tell just how long it will be before they begin turning out their new bomb in other than experimental quantities. Two weeks, I should estimate, is about all the longer I can hold them."

"If that is the case, General Loomis," I replied, "we may as well give up. Two months will see us ready. But two weeks—!"

I felt a hand laid on my shoulder. Dr. Rutledge, my science chief, had stepped into the booth behind me and overheard the conversation.

"General Loomis," Dr. Rutledge spoke, looking for all the world like a patriarch of olden times, "until five minutes ago what Johnson has just said

would have sealed our fate. But now, I think, I believe, we have one more card to play. I have only this moment completed a series of reactions which have resulted (as I calculated they should) in the production of a new protein, similar in appearance to flour. It should, although of course I have not yet had time to verify this statement, be a practical substitute for flour; and indeed, it is my belief that it will easily be mistaken for that substance. Its particles are laminated similar to starch, of an identical size, and the nutritive factor should be greater than that of bread. It is, in short, a new, a foreign protein never before found in this world of men!"

"Very interesting, I am sure," replied General Loomis, with a trace of bitterness and sarcasm in his voice. "Your noble efforts will result in feeding the yellow devils an excellent artificial fare. They will be grateful, I know!"

"Exactly my object, general," Dr. Rutledge replied. He continued impressively: "You have until now relied upon me largely in the waging of this war to save the white race from the menace of the yellow. Since all is lost at any rate, grant me one last effort in behalf of my country. At all costs, Loomis, hold your present lines for two days, preparing to suddenly retire to the west bank of the Mississippi. I leave it to your strategy to make a sudden retreat (which should extend over a period of at

least ten days) appear as if enforced by the enemy themselves."

"There should be no difficulty in that direction," General Loomis interpolated, smiling wryly on the television screen.

"Once on the west bank," went on Dr. Rutledge seriously, not noticing the interjection, "make a stand for a day or two and then suddenly retreat across the river to the east bank as if again forced to do so. Now, General, two days from this time—before your retreat begins—I shall, I trust, have your armies all along the lines supplied with my new artificial, foreign protein flour. This you will leave in the enemy's hands, which, you have intimated, will be much to their delight. You will do the same at the stand which for a while you held on the west bank. But, mind you, let none of your men use any of this perfectly harmless food. I will personally see to it that you will receive it in such containers that none will come in contact with your persons."

"Doctor," Loomis said after staring at the old scientist some time in astonishment, "except for years of personal acquaintance, I would say that you were suffering a mental shock. Knowing you as I do, however, I pray to God you're making no mistake this time. I'll do as you wish." His figure faded from the screen.

The next fortnight was one of black despair. I myself doubted on occasions whether or not the old doctor was mentally account-

able—even I who had trusted him so long. General Loomis and his staff called up daily to inquire if Dr. Rutledge had any change of plans. As for the army and the populace, they were one in calling on the President to make terms with the enemy. The allies truly were on the point of collapse. All that kept up what morale was left in the chemical division was the unrelenting demands made on us by Dr. Rutledge to continue to ferret out the electronic detonator. Until then, he had scarcely bothered with our work; now he would hear of nothing else. "Today's the Day!" was the slogan he had displayed above every bench.

Finally the fatal day arrived. The retreat across the Mississippi was consummated. This time it was not feigned. The Mongols were hungry, and their appetites were whetted for more flour such as had sustained them for the past twelve days. Moreover, new electronic bombs were beginning to be supplied them.

My name leapt at me across the room: I was being called by that almost human instrument, the television 'phone. Both my superior and I hurried to the cabinet. It was, as we had guessed, Loomis. "It's all up," he said wretchedly. "The fresh supply of atomic degenerating bombs, for which the enemy has been holding back, has now arrived. They matched and neutralized our electric field defense screen just an hour ago, leaving us at their mercy. You've had

your chance, Doctor, and failed. I advise you both to make your way north and wait until these fiends forget the inconvenience you both have caused them. As for me, I'm leaving this instant to offer unconditional surrender in the name of all the allies."

It was about ten o'clock in the morning, just after he had transported all his forces hurriedly to the east bank, and as the Mongols were occupying the old entrenchments on the west, that General Loomis closed his conversation with the Chemical Laboratory. He turned to an aerial officer who stood at attention beside him. "Major Maniu," he said, "trail a white banner of truce on your plane and tell the enemy I will parley with them. Tell them that we will serve rations presently to our men who have worked all night without food or rest, and that if it is agreeable to them, both sides shall simultaneously discontinue activity at one o'clock. At that time I shall cross the river to offer them our terms of surrender."

The officer saluted and hastened to his near-by plane. General Loomis ascended into his helicopter to confer with his staff to draw up in documentary form the surrender, and give the necessary orders relative to lowering of fire that afternoon. He also spoke to the President and to the crowd outside the White House, and then began nervously waiting the crucial moment.

About twelve-thirty, however a remarkable fact forced itself on his attention. Whereas the allied batteries continued to thunder away, the fire from the Orientals became irregular and sporadic. "Celebrating their victory beforehand," the French commander remarked bitterly to his chief. Loomis nodded. "And getting careless, too," another of the Staff added as he saw one of the enemy's detonator bombs disintegrate three or four hundred acres of a Mongolian base encampment fifty miles to the northwest and shoot it a monstrous blazing rocket twenty or thirty miles into the midday sky.

By twelve forty-five the enemy's barrage had fallen completely all along the line. Our battery nevertheless continued until the set time but elicited no answer. Exactly at one General Loomis with two aides stepped into his air-car. He was a picture of grief and despair. Three minutes late the party landed forty miles across the river before the headquarters and armored dining hall of the Oriental General Staff.

Loomis and his officers stepped out of their car and looked about. No one was in sight. Not even a sentry guarded the mess room door. The General paced back and forth a few minutes in indecision.

"Evidently they mean to make us feel our defeat," he said. "They apparently do not even think it further necessary to observe rudimentary diplomatic

courtesy. Come on, boys, beggars can't be choosers, as the antique saying goes." He led the way to the dining hall through a window of which a light was seen shining.

"Perhaps if we find his xanthic highness after a good meal he will be inclined to be a bit more lenient," Loomis whispered with a forced laugh, trying to cheer his glum companions.

He opened the unguarded door of the hall. An instant later he reeled back horror-stricken. Instead of a feasting gathering of officers attached to the Mongolian Staff he saw before a feast of men contorted in grotesque shapes by some violent death. Many lay beside the table, some on it, their faces blotched with great, unsightly wheals, their chests bloated until they seemed about to burst. Only one poor wretch had any life left in him—he lay exhausted on the floor with great streams of frothy mucous pouring from his nose and throat.

A possibility dawned in Loomis' mind. He dashed away to search the other mess tents, shouting to his aides to follow suit. It was as he guessed: they had landed in a camp of dead and dying; stricken by some mysterious power. Hope suddenly surged back into his soul. He felt dizzy and faint. Could a similar fate have caused the unaccountable silence of the enemy's cannonade? Even as the thought came to him, he knew it must be so. His marvelous old

friend, Dr. Rutledge, had risen to the need of the world and crushed the yellow menace.

Such, truly, had been the case. In a single hour, through the agency of a harmless food, the subtle scientist had crushed a nation. The principle involved had been discovered nearly two centuries before, when it was well-known that if an animal were injected with a small quantity of a protein foreign to his body, a subsequent dose a hundred million times as weak would cause its immediate and violent death. Even the quantity that might be flying in the atmosphere and become dissolved in the fluids of the nose or eyes would act as the most virulent of known poisons. Through the ages, however, the human race had more or less come in contact with all the proteins in their world and hence rarely became highly sensitized to any protein occurring in nature. The terrible toxicity of a protein which had never before occurred in nature and to whose power mankind had never been even partially desensitized had up to the time of Dr. Rutledge only entered the minds of a few scientists. His strategy was the working out of a new maxim: Nature is terrible, but man makes it more so.

Foreign protein sensitization or anaphylaxis was the basis of Dr. Rutledge's coup. The laws governing this reaction had been more or less worked out by

a group of scientists in the twentieth century. They had demonstrated that if a guinea-pig or rabbit were injected with the blood serum of another species, a subsequent dose of an infinitely small quantity of this substance would cause convulsions, collapse and rapid death. Inasmuch as there were many proteins in the atmosphere at that time due to the unrestrained pollination of plants of every description, it was not surprising that they found as many as ten per cent of the white race afflicted with a slight pollen sensitivity which showed up seasonally by causing spasms of the smooth muscle of the respiratory system, a disease popularly called "hay-fever."

Since, however, the proteins of the world had always been present, the human race had, by constantly coming into contact with them, become more or less immunized to the majority. Only occasionally a case of violent sensitivity came to light and was recognized as such. Two or three cases there had been which the old scientist discovered while searching the archives of ancient medicine and these gave him the clew he needed.

One was the case of a little girl who had somehow or other become sensitized to the protein of wasp toxin and who suffered almost immediate death from anaphylactic "choc" as the result of being stung by that insect. A second instance concern-

ed a woman who went into violent asthmatic paroxysms if a mouse entered the room where she was, and whose skin broke out into large wheals if touched with mouse hair. Finally, and most outstanding in his mind, was the case of a child who was thought to be sensitive to the fish protein in glue and who died almost immediately when the physician testing her had brought a small quantity of the dry protein into contact with a scratch on her arm.

These had, however, been rare cases, but they pointed out the method. It had already been proved over and over again that animals could be sensitized experimentally by treating them with foreign proteins, provided that after the initial dose they did not come into contact with the same protein until after a lapse of about two weeks. If they happened to do so the first injection or treatment was frequently neutralized and failed to give the desired sensitivity.

With the discovery of a new, highly pure and synthetic protein by Dr. Rutledge the situation with the enemy could be put on a close parallel with the laboratory condition. The enemy could be fed the protein when they were in need of food and had little else, but since it was synthetic, they could not get a second supply until the Doctor was able to put the fatal meal in their way.

STORIES OF THE STARS

Pictured here is an imaginary scene from one of the greatest catastrophes of all time, the destruction of the Moon civilization by a meteorite storm
(Complete story See inside cover)



Another scan
by
cape1736

